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Breeders' and cockers' guide; a full and



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H. FLOCK'S

REVISED

Breeders' and Cockers' GUIDE.

A FULL AND COMPLETE TREATISE ON RAISING GAME FOWL.
FULL INSTRUCTIONS IN EVERY DETAIL PERTAINING
TO GAME FOWL.

A FULL AND COMPLETE TREATISE ON DISEASES OF FOWL;
HOW TO PREVENT DISEASE, AND CURES FOR
ALL AILMENTS THE FOWL IS HEIR TO.

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PREFACE.

The author of this book has worded every article in such a manner that anyone that can read cannot fail to comprehend every word. Everything written in this book is instructive and from actual experience and from a practical standpoint. The author has had thirty-five years' experience. A large field for practice; has been connected with the best cockers in the country, directly and indirectly; has seen all methods and its effects for conditioning; has tried all kinds of medicines for various ailments the fowl is heir to; has seen the best cockers in the country tie on the gaffs, and from his large experience and his connection with the best of cockers is able to give the fanciers a book that is full of practical common cock sense, useful and valuable to the breeder and cocker, young and old. Every article is full of information. There is nothing lacking in this book for either breeder or cocker. There are two methods of conditioning in this book, and they are, in my opinion, positively the best. I have tried all sorts of methods, and have found that if either of my methods are strictly carried out no other way can equal them. The author has refrained from publishing anything that is not absolutely useful and instructive, and in this manner has given the fanciers a book that is full of common practical cock sense.

INTRODUCTORY.

The game fowl is at present and has long been a favorite, if not the most admired breed of all domestic fowls. The natural result has been the development of a great number of varieties. The game cock is the undisputed king of all poultry, requiring more careful judging than any other bird.

To breed pure game fowl one must prevent promiscuous intercourse among other fowls of different varieties, even out of breeding season, for one single intercourse between adverse varieties may contaminate the germs, or ova, for the whole lifetime of the fowl.

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FOWLS CONFINED TOO MANY IN ONE PLACE.

Wherever there are a large number of fowls confined there must be plenty of fresh air. Confined air is fatal to fowl.

The effect of an insufficient supply of fresh air and the accumulation in the atmosphere of animal emanation being the cause of many diseases, especially roup. As a rule confined air does not effect a weak fowl as a well and vigorous one. A fowl that has been so confined for any length of time has lost its vitality. It cannot be used for pit purpose, it cannot be ordered, it should be put back on a range for some time until it recovers its strength and vigor.

MATING AND BREEDING.

This is a very important question that requires judgment and involves much thought.

FIRST SELECT A BROOD COCK.

In selecting a brood cock the first requirements are constitution and gameness. He must be a fowl of high class and blood, and should come from a line of fighters, and he must be a fighter—one that gets his feet up above his head level. He should be large and strong and very

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active; he should be full of nervous energy and be speedy. Action is a very important trait in a fighting cock; that trait is greatly overlooked by many breeders in selecting a brood cock.

He should have a large head with bill wide set on at base. The bill should curve nicely at the point, the neck large and long, plentifully feathered, with heavy hackles. His wings and tail feathers should be long, his plumage should set close, eye should be full and fiery, not of a dull, slow look, but an eye that denotes spirit and ambition and a defiant look. Shoulders should be broad, his body should be narrowing towards the vent, his saddle feathers should be plentiful and long, covering his back profusely. Thighs should be large, tapering nicely towards shanks. Shanks should be strong, of medium size, the spur should set close to foot. Scales on legs and toes perfectly slick, with a small foot and long toes. He should not have a stilty look, nor a squatty look. He should have a graceful and proud carriage, spreading his tail as he travels with a stately walk, not a lubberly and sloppy gait. Every move he makes should denote action.

When the breeder has these important qualities in his brood cock, then his success in raising fighting cocks is assured, but he must first lay his foundation—constitution and undoubted gameness. No matter how much of a fighter a fowl is, if he has no constitution, he is worthless as a brood cock. Constitution and determined game-

ness are the two most important factors in raising game fowl.

HENS.

The hen should be clean and neat, not lubbery in appearance, the same rule that govern a cock as to spirit and grace applies to the hen. Her tail feathers should be long, curving nicely at tips, wings long. She should fly nicely upon her roost and be perfectly healthy. Much more depends upon the mother than is generally supposed. The same general characteristics should govern her that governs the cock, except his feathers.

The number of hens apportioned to a cock must vary with the surroundings. If the fowls are given an abundant range, so that the requirements of nature in respect to exercise are complied with, their vigor will be such that from eight to ten hens will not be too many for one cock. When confined in a small yard with no special provisions for exercise half the number is sufficient if a cock is very alert.

Care should be taken to allow him hens enough, so he may not worry them or injure them by too frequent attention. Hens should all be sisters, if possible. Whenever a cock takes a dislike to a hen remove her at once or he will injure her. She will never do any more good while on a yard with him.

BREEDING IN.

A careful breeder will avoid breeding in. A great

many fine strains have been utterly run out of all the essential qualities which made them successful through this mistake on the part of the breeder. Breeding in causes the loss of size, weakens the constitution, loss of bone and muscle and loss of that determination that is so highly necessary in a game fowl. Inbred cocks are hard to condition. They become delicate, both in strength and in eating. They are not vigorous, cannot stand punishment; when conditioned they have no recuperating power; after a severe battle they will die from wounds that a vigorous fowl will soon get well of.

It causes the fowl to lay less eggs. They moult and feather late, and are easy prey to disease. Breeding close, even, is productive of more delicacy of constitution than most breeders are ware of. Inbred chicks are hard to raise, cannot stand any sickness and are more susceptible to sickness than the chicks that have a new infusion of blood. Should your fowl be robust and vigorous and you breed brothers and sister you will find that they will show signs of debility in their movements after the first inbreeding.

Breeding from too young a cock will cause weak chickens. Breeding from pullets too young will do the same. All breeding stock should be fully grown. If you breed a stag he should have age; put him on old hens, never pullets, put pullets with an old cock.

It is more dangerous to cross brother and sister than

it is offspring and parent. With an infusion of new blood it strengthens the fowl in every particular, it brings on new life, vigor and strength—these qualities are highly essential in a fighting cock.

When selecting a brood cock never take the individual fighter. Frequently you see a cock of an inferior strain prove to be a great fighter. Probably he is the only one out of a bunch of ten that is a fighter, the other nine brothers are very inferior fighters. Such a cock makes a poor brood cock. He doesn't come from a line of fighters. If you breed from him the chances would be his progeny would be very inferior fighters. He is not of high class and blood. When cocks are bred right they should be all fighters. While some would excell, yet they should all come fighters. In an inferior bred individual fighting cock you get no such result. If you get one in ten that is a fighter you are doing well. While not all high class fowls are fighters, yet it is highly necessary to have high class and blood to produce fighters.

LINE BREEDING,

Procure from some reliable breeders of game fowl some good healthy fowl with stamnia and vigor in as high degree as possible. Fight the cocks until one is selected for breeding purpose. He should be of good form and style and a fighter and a good cutter. Place him on

a range or pen with six good hens, all sisters.

Next year place him on his daughters, then next year place him on his granddaughters. Save the stags and breed from the ones that are alike the old cock in every particular. They will be about three-fourths of his own blood. These stags will breed the likeness and fighting qualities, in an eminent degree, of their grand old sire. Then take a hen of no relation, place her to same old cock; he may be four or five years old; now, breed his sons that were three-fourths of his blood to his daughters by this strange hen, and you will have line breeding pure and simple.

BREEDING TO COLOR.

Get the color you desire, both male and female. One cock, say six hens—all same color. Breed them first year, next year place same cock on his own pullets and so on for three years.

Have yard No. 2 that went through the same process at same time. Place the progeny of each result together and breed back and forth to the color always, cutting out those not suited, and in four or five years you can have all same color—and not lose their vigor either.

Same precaution as to health and quality must prevail. Remember a snow white bird will sometimes throw a black one, and vice versa, like produces like with slight

variations The surroundings, such as other fowls in sight, their food, climate, etc., will come in for the variations. It is impossible to breed absolutely true to colors. Nature has fixed laws that we can't fathom. A large percent. is all we can ever get as to color.

BIRDS BROUGHT IN FROM RANGES

FIRST DAY.

Birds that have been in transit, or have been brought in off ranges, are generally very lousey and those that have been in transit both lousey and full of fever.

First thing to do for them is to cut off the spurs, then trim feathers from under the vent and grease them, then wash the feet and head with a sponge; for feet use soap and warm water, wipe dry and rub with alcohol or whiskey, or witch hazel; sponge the head with whiskey or alcohol or witch hazel, or vinegar with a little asafetidae added.

Put plenty of fresh, clean straw in a clean coop.

First feed: Give wheat bread and milk. The milk should be given warm. Give all they can eat and drink. It should be given in a sloppy state. The milk should be fresh and sweet, they cannot eat or drink too much of it.

When given in this manner it acts as a physic; it is also both food and drink; it also allays fever. Give no

medicine of any kind. A well fowl needs no medicine. By giving medicine you weaken the fowl. Give but one feed of bread and milk on the first day, but let them have all they can eat or drink of it when feeding.

This treatment should be given to all birds when they first arrive, whether they are intended for immediate use or not.

SECOND DAY.

Feed bread and milk warm; add some cooked corn meal (mush) that will thicken the food and will check the running off of the bowels; give all they will eat and drink, but feed only once.

THIRD DAY.

The cocks will be thoroughly cleaned and cooled out. They will be ready for any food you may choose to give them.

Milk must not be boiled; it should be fresh and warm. Fresh milk is a laxative; boiled milk is an astringent.

To mix the food it is best to break up the bread in a pan; then pour water over it; let it soak a little while, then squeeze the water from the bread and put it into a pan and pour warm milk over it. In that manner there is a saving in the milk.

Birds fed in this manner will wet their straw very much. Their bedding must be changed, but their feet

and head should not be washed again until the day of weighing. Too much washing gives them colds.

KEEPING COCKS COOPED BEFORE USING THEM

Birds can be kept cooped for some little time before being put through the process of keep, and not be much the worse for it. Providing the weather is cold, they should be worked just about one-fourth as much as the regular keep, and their food should be cooked oats and some green food about every other day, a little cracked corn should be added with their oats every other day with all the water they want to drink. They should be put in scratch coop every day; cocks that are not for immediate use can best be kept by working a little and then feeding them once every day. When fed at regular intervals every day they will get along very nicely; when fed once a day they should be allowed to gorge themselves. They should be worked a little, and the bulk of their food should be cooked oats. A cup of water should be hung in their coop, so they can get it at all times. They should have some green food every other day. A little cracked corn can be given them mixed in their oats every other day. When fed in this manner there is no danger of clogging them. They will keep healthy and strong. The oats will cut the fat out of him and will put meat on him, but they must be allowed to gorge

themselves. There is not the slightest danger of them clogging up when fed once a day, and they will be better for it.

A large number of breeders have continually a number of birds on hand for various reasons. These cooped birds can best be fed, as I have here stated, once a day. After they are once fed, nothing more should be given them but green food every other day and a little raw beef twice a week. When cocks are fed cooked oats they are not so susceptible to disease. The oats will keep them cooled out and keep their bowels open, and the green food will aid digestion and also act on the bowels. As long as bowels are loose and fowl are fed cooling food there is no danger of them getting fever. The oats should not be thoroughly dried out, should be moist. When fed in this manner birds' flesh get very hard in a short while. They can be kept a month in this manner and feathers will look sleek and fowl will not lose much of his freshness.

When birds are not for immediate use they are sometimes carelessly handled by their keepers. When fed twice a day probably their crops are not examined before feeding. The results are in a short while bird refuses to eat, are either crop bound or has indigestion. In a few days roup will probably make its appearance. By feeding once a day you avoid all these difficulties.

**BIRDS FOR BATTLE SHOULD BE IN COCK
HOUSE THREE DAYS BEFORE
WORKING THEM.**

Birds that are to be ordered for battle should be in the cock house three days before beginning to work them. It requires two days to thoroughly clean and cool them out. On their arrival they are tired and full of fever. It requires two or three days to get them in shape so it is safe to begin working them. Not until after the third day should any pretensions be made to work them. On the third day they should be fed lightly on such food as is intended to order them on, principally cooked oats, and they should be given all they will drink of the barley water. They should be put into scratch coops as often as possible on the first three days, and encouraged to scratch by throwing into the litter a little wheat or barley.

PRECAUTION IN ORDERING.

Great care must be taken and common sense must be exercised in ordering a main of birds. To successfully order a main of fowl you must at no time go to extremes either in feeding or working. At no time during the period of ordering should the fowl be distressed nor stinted in food. The work should be uniform all through the time of ordering. No good results can be

brought about by working a bird to extremes. It impairs strength and speed and recuperating power. Violent exercise should be avoided. As soon as a bird shows signs of distress, stop working him. By working a fowl when he becomes distressed you throw him into fever. Work should be given him by degrees and easy stages until he becomes used to his work, then the work should be uniform, twice a day. If you intend to flirt or hand spar a bird and give him 100 flirts, you must not give him the 100 flirts at one time. It should be given him in two workings, morning and night, 50 flirts each time. In that manner you would not distress him and the work would be beneficial, but if you were to give him the 100 straight flirts it would distress him and make him sore, and throw him into fever. You cannot order a fowl by crowding him with work and stinting him in food. Such birds won't have recuperating power, and will be an easy victim. A fowl should at all times during the period of ordering be given all he can digest of such food as will allay fever, make strength and cut fat. No attempt should be made in the early stages of ordering of drawing a fowl. Dry food should be avoided until after the seventh day. Then it should be brought about by degrees. In the early stages of ordering the fowls, bowels should be loose, droppings should be soft. The droppings should continue to be soft until you begin feeding dry food. By feeding moist

food and keeping bowels open you avoid fever which a fowl will have in the early stages before he gets used to his work. By the seventh day he has become accustomed to his food and work and his system is in such shape that he is not susceptible to fever as in the early stages. He has begun to season.

Then you can begin feeding dry food, but should you feed dry feed in the early stages, fever and roup must surely follow such a course. Working fowl brings on fever. As soon as a fowl has fever, stop working him. If you continue you excite fever, digestion stops and you throw him into roup. Fowl at no time during the period of ordering should be feverish or want for drink. If you give no water or a substitute you must feed in such a manner that the fowl's system is in such shape he will not want water. In working fowl, if you find he has fever, stop working him at once. Don't work or feed him anything until the fever has left him. Great care must be exercised in the early stages of keep. In regard to feeding, feed very light at first; they will not get used to their food until about the third day. Then they can be fed all they will digest. You must feed all they will pass. If a fowl won't eat he won't have strength, and if he hasn't strength he won't have recuperating power. Birds should not be worked with feed in their crop, nor should they be fed until their crop is empty. One must not be careless about feeding a fowl with feed

in his crop. If you feed at such times and his crop does not empty on the second or third feeding you must then stop feeding and working him. At such times a fowl must be watched, as it may be a case of roup in its infancy. Roup frequently follows where a fowl fails to empty out well two or three times. Fever is far less liable to show in the latter stages of ordering than in the early stages, providing the fowl has gone through the proper process of seasoning. Birds frequently hang back in their coops, won't come to the front to eat at feeding time. When they do come they eat very daintily. What they do eat they fail to pass. Birds at such times are very easily thrown into roup if you continue to work them. Such should not be worked until thoroughly cleaned out, and then fed lightly until they recover their appetite. A feed of bread and milk is best for them at such times. Add a little powdered licorice.

A feed of bread and milk will not interfere with a fowl or hamper him in getting in order if given at any time during the period of ordering, but it would not be advisable to give it on the last two days. The milk should be fresh and sweet and the bread should be wheat bread. When birds are fed cooked moist food they pass it very readily. They will not have any great desire for water, nor are they so susceptible to fever when so fed. Water can at such times be discarded if the conditions of the bird justify. A fowl can get along without

water for a long while, especially when the food is moist; the moisture in the food answers the purpose. When dry grain is fed and the birds are being worked, that produces fever, and fever causes constipation. These are sure results if fed on dry grain in the early stages of keep. A bird fed on cooked moist food will pass it in four hours (if not too much is given), his bowels are loose, he is constantly being kept cooled out, no danger of fever at such times. If the same amount of dry feed is given it will take eight hours for the food to pass into the gizzard, and that produces fever, and every time you feed him dry food you excite fever that much more. The moment you begin working and feeding dry feed you begin to draw. After the bird has gone through the proper keep his system is in such shape that when fed dry feed it will bring about the required result without the least danger of fever. The policy of feeding dry feed and begin drawing from the very start is very unwise and injurious. Birds cannot be ordered in that manner, and if ordered in that manner they will not be fit.

Some birds frequently during the process of ordering will continually have a little feed in their crop at feeding time. Their food does not digest as it should. A little powdered licorice sprinkled over their food will aid them at times. If that does not answer it is best to throw him out. He may continue in that manner until the last two days, then he will probably regain his

appetite and will eat all you give him. Such birds will not do for a long battle; they won't have recuperating power; they will start off well and stand a reasonable amount of cutting, but when the battle is of long duration they will surely let down.

In working birds they should not be crowded with work. If you crowd the birds with the same amount of work in five days that should be given them in ten you injure them, they lose everything that is essential to their proper condition. By the uniform system of working they become seasoned by degrees and lose none of their necessary qualities.

Before feeding every bird's crop in the house that is to be fed, should be examined to see if he has food in his crop. If much or little, his crop should be marked with chalk accordingly and should not be fed until later. Those that have much had better not be fed until entirely empty.

When a bird gets so he will refuse to eat while ordering he should not be thrown aside, as he might be one of the most useful ones. Continue working him and change his food; give bread and milk and give him all the barley water he will drink, and when he begins eating (which he will after a treatment of this kind), feed him sparingly of his regular food until he is thoroughly at himself. By giving him all the milk and barley water he can drink he will relax and get soft,

but he will not loose strength and when he begins to eat he can soon be dried out again. When treated in this manner you do not loose the service of the bird, and you also bring back the bird to good health.

Drugs must not be used at such times. A fowl needs no drug unless it is sick. You cannot order birds by filling their systems with drugs.

Some birds that have had a free range will get into condition sooner than others. When in order they should then be given one-half of the usual work. When in order their flesh and muscles will be hard and skin drawn tightly on them. They will not blow when running them on the work bench. Some will order in eight or nine days. By following my method the birds will all get in proper order without stinting them in either food or drink, their system will be in such shape that two feeds of dry corn will dry them out sufficiently. If work is not cut on bird when in order, you will overdo, he will get muscle bound and it is also a waste of strength. In wet, murky weather birds must not be worked; it gives them swell head and causes rattles in the throat. There is not much danger after the eighth day, but it should be avoided if possible.

HOW TO WORK BIRDS.

Catch a bird by both thighs, hold him from you with his head towards you, throw him back until he flutters,

hold him perfectly still while he flutters. When he is exhausted place him on the work bench (it is best not to let him exhaust himself completely) and let him rest for a few seconds (you repeat this every time you work them until three days before the fight). After being rested place him on his feet, put your right hand behind him and push him to your left as far as you can reach without moving your feet. Then put your left hand behind him and bring him back to your right as far as you can reach. You repeat this and keep him at it for half a minute, then you flirt him fifteen times (or hand spar), then run him again for half a minute, then flirt him ten more times and then put him away. This is his first work. Second work: Repeat this in the evening. Second day you increase the work to 50 flirts and work two minutes on the bench; never go above 50 flirts, twice a day, morning and evening, at any one time, but always alternate; give 10 or 15 flirts and then run him a little; then give 10 or 15 more, then run another half minute, then again flirt him 10 or 15 times, run him again until you have consumed the two minutes and have given him his 50 flirts. At first work will be hard on the bird; also on the man doing the work, but the bird will soon get used to it. As the work progresses you run them faster after the third day, but always with this in view, not to overdo. You run him up to the day of the fight, but you decrease to one-half on the last day, but when

the bird is ordered he then needs only exercise.

As soon as the bird opens his mouth and shows signs of distress, let him rest until he recovers his wind. Then you can again put him through. The work must be given slowly at first, then after they get used to it in from three to five days you can then crowd them, but not to excess. The work should be given them in such a manner as to not distress them at any time during the period of ordering. The fluttering gives the bird great wing power, and the running on the board gives them lung power. As soon as a bird is getting in order his breathing is not so severe and he does not open his mouth as wide as he did. When in order you can run him very fast and he will not open his mouth. If he arrives at such a stage and his flesh is firm and hard and his skin is tightly drawn, he is in order. Then cut his work to one-half and let that half be given slowly. A fat bird will open his mouth up to the last two days at times. The fat is not out of him as long as he opens his mouth while working. Such birds should be given their regular work up to the day of the fight.

You must work a fat bird very slowly the first three or four days, as the work is very trying on him. He soon gets exhausted. When so, you must let him fully recover his wind before proceeding any further with him. By this method of working the birds gradually become seasoned and will retain all that is essential.

Excessive work is very detrimental to a bird in every way. First place you distress him, that brings on fever, he won't then digest his food, he will refuse to eat; if the fever is not broken he will get the roup; he will then have to be thrown out.

TABLE SHOWING HOW TO FEED COCKS— DAILY ROUTINE

After birds have been in the cock house three days and have gone through the proper process of cleaning and cooling out, I begin working on the fourth day. I require twelve working days.

I mix my feed according to the number of birds I have to feed in a big pan. Always warm the feed. In the early stages the bulk of the food should be moist oats. Pearl barley I allow in proportion one teaspoonful to a bird. In the early stages I feed the yolk as well as the white of eggs. I work the egg through the oats and barley with my fingers, so the oats is well coated. The birds relish it better when fed in that manner. I give in proportion one egg to five birds. I work all the birds first and then feed them all at one time. If I have fifty birds I must have fifty cups. They must have their regular feeding time. Cups must be scalded after feeding. The food can be changed at any time, according to conditions of the birds; the feeder must judge.

FIRST DAY.

Morning—Let them flutter; hand spar (or flirt) 25 times; run 1 minute on bench.

Morning feed: Oats, pearl barley and eggs.

At noon: One ounce of finely chopped lean beef.

At 1 p. m.: Barley water; let them have what they want of it, 6 or 8 swallows.

Evening—Same work as morning.

Feed: Same as morning, oats, pearl barley and whole eggs.

SECOND DAY.

Morning Work—Let them flutter; work on bench 2 minutes; 50 flirts.

Feed: Oats, pearl barley and eggs.

At noon: Two ounces of finely chopped lean beef.

At 1 p. m.: Barley water, 6 or 8 swallows.

Evening—Give same work.

Feed: Oats, pearl barley and egg; throw in a few handfuls of cracked corn.

THIRD DAY.

Morning—Let them flutter; 50 flirts and work on bench 2 minutes.

Feed—Oats, pearl barley and egg.

At noon give about 2 ounces of finely chopped apple and at 1 p. m. 6 swallows of barley water.

At 3 p. m. I muffle them and select what I think best.
No more work this day.

Feed in the evening: Oats, pearl barley and egg; add a little cracked corn.

FOURTH DAY.

Morning—Let them flutter 50 flirts; work 2 minutes on bench.

Feed: Oats, pearl barley and egg.

At noon: Beef 2 ounces.

At 1 p. m.: Barley water, 6 swallows.

Evening—Give same work as morning.

Feed: Oats, pearl barley and egg.

FIFTH DAY.

Morning—Let them flutter 50 flirts; work 2 minutes on the bench.

Feed: Oats, pearl barley and eggs.

At noon: Two ounces of beef.

At 1 p. m.: Six swallows of barley water.

Evening—Same work as morning.

Feed: A ration of clear corn; moisten with calf-foot jelly.

SIXTH DAY.

Morning—Let them flutter 50 flirts; work on bench 2 minutes.

Feed: Oats, pearl barley and egg.

At noon give apple a tablespoonful or chopped cabbage; if cabbage, give all they want.

At 1 p. m., 6 swallows of barley water.

Evening—Work same as morning.

Feed: Oats, pearl barley and eggs.

SEVENTH DAY.

Morning—Let them flutter 50 flirts; work 2 minutes on bench.

Feed: Oats, pearl barley, white of eggs in proportion 1 egg to 3 birds; discard yolks from now on.

At noon give 2 ounces of meat.

At 1 p. m., 6 swallows of barley water.

Evening—Same work.

Feed: Oats, pearl barley and white of egg and cracked corn.

EIGHTH DAY.

Morning—Let them flutter 50 flirts; work 2 minutes on bench.

Feed: Oats, pearl barley, white of egg and cracked corn.

At noon 2 ounces of beef.

At 1 p. m., barley water, 6 swallows.

Evening—Work same as morning.

Feed: A ration of clean cracked corn; add a little calffoot jelly.

NINTH DAY.

Morning—Let them flutter 50 flirts; work 2 minutes on bench.

Feed: Oats, pearl barley, white of egg; add cracked corn.

At noon give beef 2 ounces.

At 1 p. m., 6 swallows of barley water.

Evening—Work same as morning.

Feed: Clear cracked corn, dampened with calffoot jelly.

TENTH DAY.

Morning—Discard letting them flutter from now on 50 flirts; work 2 minutes on bench.

Feed: Oats and cracked corn mixed; discard eggs.

At noon give chopped apple.

At 1 p. m., 6 swallows of barley water.

Evening—Work same as morning.

Feed: Clear cracked corn; moisten with calffoot jelly.

ELEVENTH DAY.

Morning—Fifty flirts; work 2 minutes on bench.

Feed: Cracked corn; add a little oats; moisten with a little calffoot jelly or barley water.

At noon no feed.

Give barley water according to condition of bird; if

well drawn can give 6 swallows; if loose, give very little, if any; feeder must judge at such times.

Evening—Work same as morning.

Feed: A big feed of dry cracked corn.

TWELFTH DAY.

Morning—Give 25 flirts; work on bench 1 minute.

Feed: Damp corn, moisten with clear water; discard barley water on twelvth day.

Noon: No food.

At 1 p. m.: Clear water, according to condition of fowl.

Evening Work—15 or 25 flirts, slowly; work 1 minute on bench slowly.

Feed: A good big feed of dry cracked corn.

THIRTEENTH DAY.

Morning of weighing, if cocks are to be weighed at 10 a. m., then the cocks should be fed the night before late in the evening. If they are to be fought at night, then a good feed of wet cracked corn should be given them after weighing. If they are to be fought soon after weighing, then a little at a time should be given them. Feed according to the time you have. If birds after weighing in and matched must be kept at the weights weighed in, then the cocks must be put on the scale quite often, so as not to run him up in weight. As soon as the food has

passed into the gizzard a little more can be given him. When fed in that manner there is no danger of having much food in his crop. Birds must be fed or they will get weak. If the fights are prolonged far into the night then it is very essential that the cocks to be fought last must be looked after as far as feeding is concerned, or they will get weak. It in no manner injures a cock to have a few grains of food in his crop when fought. I much prefer a few grains of corn in their crop than to have them starved out.

If the main is prolonged for two or three days, then those birds that are to fight on the morrow and the day after will have to be worked and fed as follows, or they will get sluggish:

THIRTEENTH DAY WEIGHING.

For those that are to fight on the second day:

Morning—Give 25 flirts; work on bench 1 minute.

Feed: Cracked corn strictly, moistened with water.

At noon give 3 or 4 swallows of water.

Evening—Give 15 flirts slowly; work 1 minute on bench slowly.

Feed: Dry crack corn (a big feed).

Morning—Day of fight, feed moist corn.

Those that fight on third day:

Morning—50 flirts; work on bench 2 minutes; work moderately.

Feed: Cracked corn, moistened with water.

At noon give 4 or 5 swallows of water.

Evening—Give 50 flirts; work 1 minute on bench.

Feed: Dry corn.

FOURTEENTH DAY.

Morning—25 flirts; work 1 minute on bench.

Feed—Moist cracked corn.

At noon a few swallows of water.

Evening—15 flirts; work 1 minute on bench.

Feed: Dry cracked corn.

Day of fight feed moist corn in the morning; during the day put the birds in sun coops.

In feeding moist corn on the last two days it is best fed by putting corn in a pan and pouring over it some clean water; then drain off the water and put corn on a cloth for a few moments to absorb the moisture, but it should not be too dry nor left in the water any longer than to moisten the corn; best way is to pour it into a seive and then feed it at once.

If milk is used it can be given the same as barley water, but must be discarded on the last two days, and clear water given in its stead. When beef tea is used it must not be given too rich; must be discarded on the three last days.

In my method of keep a feeder must use some judgment. He can follow my instructions or he can change

the food as he thinks best, according to condition of the birds, but to the one that is not posted it would be advisable for him not to wander too far away from the routine I have written out. Birds must not be stinted in their food. Give all they will digest. They are obliged to be strong if they will eat; they may be a little high in flesh.

But that can be remedied after a few trials. By this method, strictly followed as I have written out, one can't go wrong by giving all the birds can eat and drink. They will come to their proper condition without stinting in either food or drink.

This method is for short heel fighters also, birds for short heel fighting can be stinted in their drink a little more in the latter stages of keep and may be kept at work a few days longer, according to the judgment of feeder. They require a little more drying out. A bird to fight successfully with long gaffs must carry flesh, but he must have no fat.

In the early stages of keep the oats should not be dry; should be fed moist. When fed in that manner they pass it very readily, but if fed too wet birds bolt their food, and if continually fed wet it will sour in their crop and cause indigestion. As the work progresses the oats should be dried out accordingly—damp in the early start of keep and dry in the latter. The last feed of oats should be very dry when mixed with corn.

Soon after feeding the birds they should be put into sun coops and left there for at least thirty minutes. A teaspoonful of wheat should be thrown into the straw that will cause them to work well. This should be kept up every day until the day of fight, but wheat should be discarded after the tenth day. Nothing on the last two days but clear corn.

By feeding nothing but clean well washed corn and nothing but clear water, you avoid all danger of birds getting sick or off their feed on the last moment. Whatever mixed food they have eaten on the tenth day will all pass from them by the evening of the twelfth day. Their droppings will then be hard from the corn fed them. The corn fed them on the last two days will draw them to their required condition without stinting them in food. When a bird is in order his droppings should be hard with a greenish tint at base and white on top, but feeder must not look for such results until after the tenth day. As long as mixed food is fed them their droppings will be otherwise. They should be soft until the ninth or tenth day. As soon as you begin to draw their droppings will harden, frequently the best of ordered birds when badly wounded when in battle after a severe buckle will have a watery discharge from the bowels. Sometimes it is perfectly white. They are liable to have several discharges during a prolonged battle, but as soon as rested and they have recovered

from exhaustion they get over it. It does not impair their strength. A bird's bowels must not be loose when ready for battle. He must be fed on such food as to draw and tighten him, and his droppings should be hard. Should you fight him with bowels loose he would have no recuperating power. When cut he would never be able to come back or stand punishment, but if you draw too much birds get muscle bound.

Morning of weighing can feed 4 a. m. or 5 a. m., according to the time of weighing. If you intend to weigh at 10 a. m., then it is best not to feed until after weighing, providing you have given the cocks a big feed the night before. If you intend to fight at night and weigh in the morning you can then give them a good feed of damp corn immediately after weighing, but if you intend to fight soon after weighing you must then give them a little at a time. As soon as the food has passed into the gizzard can give a little more, if you are compelled to keep them at the weights weighted in. You must then put them on the scales frequently and feed accordingly, so you will not run them up. That can easily be avoided by feeding a little at a time and weighing them after feeding.

ROUTINE TO FOLLOW FOR THE SEVEN-DAY KEEP.

On arrival give bread and milk all they can eat first

day; second day, next feed, give soaked pearl barley and onion cut fine for all.

FIRST DAY'S WORK.

Morning—Let them flutter 25 flirts; 1 minute's work on the bench.

Feed: Corn, hominy, meat and barley; 10 a. m., barley water; 3 p. m., 6 swallows.

Afternoon—Let them flutter 25 flirts; work 2 minutes on bench.

Give same as morning feed.

SECOND DAY.

Morning—Let them flutter 50 flirts; 2 minutes on the bench.

Feed: Corn, hominy, meat and barley; 10 a. m., barley water; 3 p. m., barley water.

Afternoon Work—Let them flutter 50 flirts; 2 minutes on bench; feed same as morning.

THIRD DAY.

Morning—Let them flutter 50 flirts; work on bench 2 minutes.

Feed: Corn, hominy, meat and barley; 10 a. m., barley water; 3 p. m., give barley water.

Afternoon—Let them flutter 50 flirts; work 2 minutes on the bench.

Feed: Same as morning.

FOURTH DAY.

Morning—Let them flutter 50 flirts; 2 minutes on the bench.

Feed: Bread and milk all they can eat; morning no water; 3 p. m., 3 swallows.

Afternoon—Let them flutter 50 flirts; 2 minutes on the bench.

Feed: Corn, hominy and meat and barley.

FIFTH DAY.

Morning—Let them flutter 50 flirts; 2 minutes' work on the bench.

Feed: Corn, hominy, white of hard boiled egg; 10 a. m., barley water; 3 p. m., barley water, 3 swallows.

Afternoon—Let them flutter 50 flirts; 2 minutes' work on bench.

Feed: Hominy, corn, white of egg.

SIXTH DAY.

Morning—Discard fluttering, flirts 50 times; work on bench 2 minutes.

Feed: Corn, hominy and white of egg chopped fine; 10 a. m., 3 swallows barley water; 3 p. m., barley water.

Afternoon—Work 50 flirts; 2 minutes on bench.

Feed: Hominy, corn and white of egg.

SEVENTH DAY.

Morning—Work 25 flirts; work on bench one-half

minute; same in the afternoon.

Feed: Moist corn in the morning and a full feed of dry corn at night; give no water; if any, very little.

EIGHTH DAY OF FIGHT.

Weigh in, no work after weighing if one day's fighting; feed light feed of wet corn after weighing in.

If three days' fighting, work the cocks for second day's fighting 25 flirts, one-half minute on bench in the morning and night, and feed corn and hominy morning and night; give a couple of swallows of water at 10 a. m. and 3 p. m.; feed damp corn in the morning and dry at night.

Those cocks that are to fight on the third day: Work 50 flirts the first day of weighing and work on bench one minute morning and evening; feed hominy and corn; give water 10 a. m. and 3 p. m., 2 swallows.

Second Day—Flirt 25 times; work on bench one-half minute morning and night; feed corn and hominy morning and night; give water 10 a. m. and 3 p. m. no water.

Third day of fighting: No work; feed wet corn early in the morning, so they will pass it before fighting time.

It is important that birds should be worked after weighing if they are not to fight the same day. If they are not worked they become sluggish and lose their ac-

tivity, but great care must be taken not to work too much. Birds should be put in the sun coops in secure places with sand and hay to scratch in after being weighed. This method of feeding can be prolonged to suit feeder, but the fluttering of birds must be discarded two days before the fight.

If you weigh early in the morning it is best to feed a dry feed at night; then, after weighing, you can feed again, and give them what you think they will pass by the time of fight. It is far better to give a little at a time and give often than to give a big feed. Feel their crops, and when empty feed again what you think they will clear in time. By feeding a few grains at a time it soon passes into their gizzard. When fed in this manner their strength is maintained and there is no danger of getting them clogged or having too much feed in their crops. It does not matter if a bird has a few grains in his crop at the time of fight. It is better he should have than to be entirely empty. If too long without food they weaken.

Feed should be mixed in a large pan in proportion to the number of birds to be fed. Meat should be cooked and chopped fine. A teaspoonful of pearl barley for each bird at a feed. Barley water should be used all through keep until last day, then clear water should be used to moisten the corn and also for drinking if any water is given.

REDUCING A FAT BIRD.

A bird that has excessive fat on him is very hard to condition. A bird that has been confined in a small yard with no provisions for exercise accumulates an abundance of fat. They get excessive fat in their abdomen and also at the end of the guide bones at the vent. The fat in the intestines must be removed. The fat at the end of the guide bones when fowl has long been confined forms into a sort of gristle and fat combined, which is very hard to remove. If the fat in the intestines is removed, which is highly necessary, the fatty substance at the end of guide bones can remain if hardened. A fowl of this character when taken up to condition should be put on a free range for eight or ten days. It helps him in every way; he will run off some of his accumulated fat, and what is left on him will yield more readily to the food fed him to condition him when he is taken up. It also helps him to loosen up; when long confined he gets muscle bound and loses activity. If put out for two or three days only will be a great benefit to him.

A fat bird should be fed very sparingly the first two or three days. They require very little food the first three days. They are easily thrown off their feed. They should be worked slowly the first two or three days. His principal ration should be moist oats, add a teaspoonful of pearl barley,

give not over six swallows barley water a day, after three days give him all the damp oats he will digest. The oats will cut the fat out of him. After the third day you can give a little beef at noon, but oats at night all the way through the keep until the last two days. Moist oats in the start and dry oats in the latter part of keep. When given moist oats he needs no water, but it is best to give him 6 swallows of barley water a day until two days before the fight. On the last two days give moist corn in morning and dry corn at night and three swallows of clear water at noon. After the fifth day give white of egg for four days at every feed; chop it fine. Give a teaspoonful of barley at each feed with oats and eggs. You can cut an ounce a day for twelve days off an extremely fat bird and he will be good and strong. If fed oats alone (damp) he will get in order and be strong.

He should be worked the same as the other birds going through the process of keep, but he must be worked very gently in the start, as it takes very little exertion to break him down. He should be stinted in food for a few days in the infancy of keep. He will be all the better for it, but when he begins to eat he must not be stinted in food. He must be given all he can digest. Working a bird does not cut the fat alone; it must be done by a system of feeding and work. By feeding birds fattening food and giving them all the drink they

require they will run up in weight in spite of all the work you can give them. A fat bird should be reduced by degrees, so as to not impair his strength. A very fat bird can stand very little violent exercise. He should not be reduced over one ounce a day. He should be fed accordingly. When reducing too fast over an ounce a day, feed him of such food that will check the reduction in weight too fast, or it will impair his strength and vigor. The last two feeds of dry corn will draw him down very much in weight after he has gone through this process of keep.

HOW MUCH TO REDUCE A BIRD FOR BATTLE.

A fowl that has had an abundant range, and has been fed on grain, will come off his walk within one to three ounces of his weight of what it should be after he has gone through the process of keep; it is very unwise and injurious to reduce too much, after the fat is out of a bird. Then you must stop reducing. A bird fit for battle must carry flesh, but it must be seasoned by the process of keep. A bird that has had the meat taken from him beyond his proper weight, will be weak and illy prepared for a prolonged battle. A bird that should fight at five pounds, if reduced to 4½, that would be four ounces below his proper weight, he would fight weak; he would fight better and stronger at 5-4; he

would fare better with four ounces over weight than he would four ounces under weight.

There is a prevailing idea amongst a large number of fanciers, that it is an advantage to get a large bird weighed and matched at a small weight, having the bird look big for his weight. There is nothing to be gained by that method. If you gain that point you sacrifice another; unless one has a thorough knowledge of ordering a main of birds he had better not attempt it. Birds that have come to their required condition by being fed all they can eat and drink will give far better satisfaction than birds that are drawn beyond their proper weight. As a rule, birds drawn below their proper weight show inferior condition. A bird that has been too much drawn gets skin and muscle bound; also has no recuperating power. When exhausted his strength will not return, nor has he the power to drive the gaffs.

ACTION IN A GAME BIRD.

Action is a highly essential trait necessary to a bird's success in battle. If a game bird has no action, no matter how well bred, he may as well be cast aside as worthless. A bird with good action will hit without an apparent effort. He will hit from any position he may be placed in while in battle. When going over his adversary, apparently, before he hits the ground he turns instantly and strikes. At times a well actioned bird will

turn in the air while over his adversary and come down on him. To tell a good actioned bird, take a bird in your hand and hold him to him and let him strike at him, note the way he strikes. If well actioned he will hit with his feet well out in front of him above his head level; he will hit without an apparent effort. When he hits his wings snap and they make a whistling noise. He will hit with a sharp snap. He will light lightly on his feet without any back steps or wobble, and the moment he lights on his feet instantly he is ready to hit again. Whenever you have such a bird he is bound to be a fighter. A bird without action when going over his opponent does it with a mighty effort. When he strikes he labors hard. When he lights on his feet when going over the other bird he will probably land a foot or more from him, he will require room and time to turn around in to strike again. By the time he is straightened out to strike again he is either badly crippled or killed. In holding a bird to him to let him strike, when he hits and lights on his feet he wobbles and probably takes two or three steps backward, or falls on his side; when he strikes he labors hard. He is lubberly in his actions. The second lick he makes he will want a bill hold. His feet will not go but a little ways out in front of him. He makes mighty efforts with his wings. Such birds are of very inferior class and blood and are worthless as fighting fowl.

SPARRING BIRDS.

When putting birds in order, one of the worst mistakes a feeder can make is to continually spar his birds. They should not be sparred more than twice during the period of keep, and once would be often enough. Birds can be sparred on the second or third day to take off the wire edge of some of the birds, and in a few days they can be sparred again to select them. It is a serious mistake to spar birds after you have begun to draw them. They are then getting strong, they then hit very hard and are liable to injure one another. Many a bird has been ruined by sparring too much. When sparred too often it learns them to want a bill hold. When put down for battle a much sparred bird runs in and looks for a bill hold. He won't hit without it, they are easy victims. The finest sparring bird can be easily ruined by too much sparring. They break beaks off and break both wing and tail feathers; if any sparring is done, it should be done in the early stages of keep, while the fowl's bowels are loose, and on the day of sparring they should be given a good feed of finely chopped apple some time before they are sparred. Sparring birds brings on fever, especially when being fed dry food. After being sparred they should not be put into a cold coop too soon, as the exercise is very violent, they get very warm and it is almost fatal to put them in a cold coop. The house should be warmed for the time being.

BIRDS IN TRANSIT FOR BATTLE.

AFTER BEING ORDERED.

If birds are to be shipped after being ordered 100 or 200 miles it is far better to put them in sacks and hang them up. They rest better and won't worry like birds shipped in coops. Birds put into coops will be constantly on their feet, won't rest and will lose from one to three ounces when in coops while in transit. Frequently birds are hauled to the place of battle some little distance. They are best hauled in this manner: Put some straw in a spring wagon, and put birds in loose sacks, and lay them on the straw. Run a pole lengthwise above the birds and tie the ends of the sacks to the pole. In this manner they ride without injuring or jarring them. They must not be packed too close, as they soon become hot when closely packed, and if so, when the weather is cold when taken out of the wagon in the cold air they take cold very readily. Birds hauled the same distance in coops will not be in so good condition on their arrival, as they are constantly on their feet. Every motion of the wagon jolts them about. It is a strain on them to stay on their feet. Birds hauled in this manner lose weight, and are otherwise injured for the time being.

If birds are to be hauled any considerable distance, they had better be conditioned on the battle ground, or

close by. It is very unwise to move birds any long distance after they are ordered.

FIRE IN COCK HOUSE.

When ordering a main of birds, if weather is not severely cold the birds will be better for it if there is no fire in the cock house. If extremely cold the fire should be so as to just take off the chill. While working the birds the cock house should be warm, fire should be started before the work begins so the house is warmed by the time work is to begin. When through working a bird by going through the violent exercise gets warmed up, and if there is no fire in the cock house when he is put back into his coop he cools out too suddenly, and that causes cold. After all have been worked and cooled out fire should be put out. They want plenty of straw to keep their feet warm, but no fire. Fowls throw off a certain amount of emanation, especially where there are a large number of them confined, and if there is not a sufficient supply of fresh air, the atmosphere in which they are living soon becomes foul. With a constant fire in the cock house it becomes doubly so. Working the birds in the foul atmosphere poisons their system. Roup then breaks out among them in violent form. While birds are not being worked doors and windows should be opened, if weather permits, but they should not be

put in a draught. The slightest crack in a chicken house is liable to give the fowl a cold if it causes a draught.

HOW TO MAKE A SUN COOP, OR SCRATCH COOP AND WORK BENCH.

A scratch coop should be made of lath 4 feet long and 2 feet wide, and $2\frac{1}{2}$ feet high. If made too large bird is hard to catch. Too large is not necessary. When sun can be had the birds should be put into the coops and left there for thirty minutes. If sun is extremely hot they should be removed. If weather is bad the coops can be put into the cock house and used there for birds to scratch in. To prepare a scratch coop in cock house, place a gunny sack on the floor and draw the sack well, tack down the ends and sides, then throw on sacks some sand and grit. Put on top of this some straw or other litter for the bird to scratch in. Birds should be put into these coops every day. Scatter a little wheat or barley to encourage them to scratch. As soon as birds are tired of scratching they can be removed from the coop.

WORK BENCH.

Work bench, or running board, should be made in the following manner: Get two boards 12 inches wide and 8 feet long. Place them on brackets $2\frac{1}{2}$ feet from the

floor against a wall. Get some straw and put on top of boards and then draw some gunny sacks over the straw. Use plenty of straw and draw the cover very tight and tack it down. Then close both ends with upright boards or cloth of some kind to keep birds from jumping off either end while running him. Gunny sacks are the best as they are soft. Do not use canvas. Birds slip and slide on them. They cannot get any toe hold on them. They won't work well on any slick material.

PREPARING OATS.

In preparing oats, clipped oats should be used (as the fibrous ends of unclipped oats frequently gets into a fowl crop and it can't be removed and the fowl is ruined.)

Take a large vessel, or can, and fill it half full of oats, then cover it well with water. Put it over a slow fire and let it cook for two hours. Keep it covered with water and stir it from the bottom quite often or it will scorch. Do not cook too much or it will get gummy. When ready to remove from the fire, spread it out on the floor on a sack or cloth and let the water drain off; best to pour it into a sack, then spread it onto a sack or cloth, and let it dry out. It should be put in the sun to dry out. If no sun can be had, then put it into a warm place where it will dry out gradually. It should not be put in a stove, or over it, or under it; it should

be air-dried, not kiln dried; kiln dried food is injurious. After being thoroughly dried out it can be put away or can be left spread out until used. This food should be prepared in time, so it will be seasoned by the time it is wanted. Enough can be cooked to last during the keep, unless a large number of birds are to be fed; in that event will have to prepare often. When the oats are properly cooked and dried it can be put into a box. It will not spoil or get hot if it has been properly handled. The principal thing is to get it properly dried out in the sun. It should be turned every two or three hours while drying out. Do not feed it if sour or mouldy. If it sours it can then be rewashed in fresh water and then redried, but it is best not to use it if fresh cooked oats can be had. Do not spread it out thick while drying out. It should not be dried out too much.

HOW TO PREPARE CORN.

Cracked corn has more or less chaff and ground cob mixed with it. This must be removed from the corn. When birds get this chaff into their crops it is hard to remove. The corn should be coarsely cracked, and then sifted through a coarse sifter; then put into a tub or vessel of good size. The corn should then be covered with water. The corn should be stirred. All foreign matter will then come to the surface. When it can be removed, wash the corn until clean. It is not advisable

to leave the corn in the water longer than necessary to remove the foreign matter.

After having it washed drain the water off and place the corn on a cloth, so as to absorb the moisture. It should be put in the sun to dry. If no sun can be had, then place it in some warm, dry place, where it will dry out slowly.

Do not put in oven to dry, as kiln dried food is injurious. It is very hard to digest and the most essential properties are destroyed by this process. No matter how careful the corn has been cracked it is very important to wash it, then spread it and let it dry out.

FOOD FOR ORDERING COCKS.

Birds should be fed on food that makes strength and muscle, that will cut fat, and gives lung power.

PROPERTIES OF FOOD TO BE FED.

100 Parts.	Water.	Muscle.	Fat.
Corn	14.0	12.0	73.0
Oats	13.6	17.0	66.4
Barley, pearl.....	14.0	15.0	68.8
Wheat	14.0	14.6	69.4
Beef	50.0	15.0	30.0
Yolk of egg.....	48.0	15.9	37.0
Eggs, white of.....	53.0	17.0	.0
Milk	86.0	5.0	8.0

GRAINS OF STRENGTH YIELDED BY ONE POUND OF THE
ABOVE FOOD.

Beef	172
Oats	140
Corn	125
Pearl Barley	91
Wheat	90

IN FATTING MATTER.

First, corn.

Second, wheat.

Per cent. of nutrition is in favor of pearl barley.

SUBSTITUTES FOR WATER.

In ordering cocks I use no clear water.

Can use beef tea.

Boiled milk,

Or barley liquid.

WHEN USING MILK.

The milk should be put over a fire and when it forms a scum it should be removed. If allowed to boil it will destroy all the necessary ingredients. When used, if properly cooked, becomes an astringent and has a tendency to tighten a fowl.

BARLEY LIQUID.

Take three pounds of pearl barley and place in a vessel or bucket; pour over it one-half gallon of hot water,

cover it well and let it stand 12 hours; the hot water will draw out all the strength from the barley; drain off the liquid as you use it; then squeeze the liquid out of the barley; you will get about one quart of liquid from the mixture; the balance will be absorbed by the barley. It is highly important to let the cocks have plenty of this to drink, especially in the early stages, as it allays fever; it acts very mild on the bowels; has a tendency to tighten; can give it with perfect safety. It gives wonderful strength, when freely given.

CALF FOOT JELLY—HOW TO MAKE.

Take four calves' feet, wash them so they are clean; put them into a vessel and cover with cold water; put them over a fire and boil them until every particle falls from the bones; then strain into another vessel and let stand until hard; then put on stove again and let it get quite warm; beat the white of an egg into froth, and stir it into the jelly; then take it from the fire and let it stand until cooled; then all the settlings will rise to the top; that should be skimmed off; then the jelly will be perfectly clear; take as much of this as you think you will need during the keep. Put it on the stove and warm it. Then add one-half pint of Valentine's Beef Juice and stir it up. It should be put in an air-tight jar and kept in a cool place.

HOW TO USE IT.

When feeding dry feed, take a couple of spoonful of jelly and put into a cup; put on fire to dissolve, then pour it over the feed, and mix; amount to use is according to the number of birds to be fed; three tablespoonsful is ample for 50 birds at one feeding. It is very rich; too much at any one time should not be given.

HOW TO MAKE COCK BREAD.

Set a sponge of compressed yeast; add 1 pound of wheat flour; 1 pound of barley meal; 1 pound of oat meal; 1 pound of rye flour. Add the yolks of 12 eggs, 1 pint of malted milk; add a little salt; work up and bake as any other bread; make in proportion to the number of birds to be fed; when baked let it lay 24 hours before using.

When feeding cock bread, break it up finely into a pan, pour over it enough calf foot jelly to moisten; this makes a strong food and gives great strength.

LINIMENT FOR WOUNDED BIRDS.

Alcohol	2 ½ oz.
Castor oil.....	1 oz.
Turpentine	2 drachmes
Oil Origanum.....	2 drachmes
Oil spike.....	2 drachmes
Oil cedar.....	2 drachmes
Tinct. arnica.....	2 drachmes
Aqua ammonia	2 drachmes

This is one of the best Liniments that can be gotten for fowls.

FLOCK'S ROUP POWDER, AND HOW TO USE IT.

Powdered galanga root.....	2 oz.
Burnt alum.....	1 drachm.
Carbonate of iron.....	1 drachm.
Carbolic acid	15 grains.

Mix well. Put the whole of it into a small bellows and blow into fowl's nostrils 3 times a day; also put a little on fowl's tongue; can use a goose quill also; fill the quill with powder and hold open fowl's nostril and blow in the powder; 2 ounces will cure 50 fowls.

HEELING.

In heeling the point of the left gaff should be thrown out and the point of the right gaff should be thrown in; the outthrow for the body and the inset for the head.

The left leg is the bird's fighting leg. He strikes with that with the same force (in proportion) as a man does with his right arm.

In fighting long heels it depends on the size of the bird the length of gaffs he can carry. A 4-pound bird should not carry over a 2-inch gaff, a 4-12 to 5-10 should carry a $2\frac{1}{4}$ -inch heel, but a bird above that can carry a $2\frac{1}{2}$ -inch gaff. A gaff longer than $2\frac{1}{2}$ inches becomes a detriment after the second buckle. As soon as a fowl is wounded they will not be able to point them. A 3-inch heel should never be used. A bird will do more execution with a 2-inch gaff than he will with a 3-inch.

A $2\frac{1}{4}$ -inch gaff is of sufficient length for any bird. In putting on the gaffs enough packing should be put over the spur to let the socket go down easy and rest squarely on the leg. By putting on too much packing and forcing the gaff over it will twist off the horn of the spur in either putting on the gaff or in taking it off, or if the battle is of long duration if the gaff has been forced on the spur, the spur will come off when taking off the gaffs. The gaffs should be tied reasonably tight. There is no danger in cramping a bird by tying on the gaffs, unless you use extraordinary force in tying. Frequently birds cramp during a battle, and it is commonly supposed that the gaffs have been tied too tight. It is seldom that a bird cramps from having the heels tied too tight. An injured bird frequently cramps. A bird much distressed will cramp during battle, and heelers are frequently blamed for cramping a bird and losing the battle thereby, when they are entirely innocent and couldn't cramp one if they tried.

Heels should be made so the point will point to its proper place when the gaff is setting square on the bird's leg. When gaffs are made accordingly, then any one can tie them on and they will cut for an amateur as well as the most experienced. Set such gaffs square on the leg and tie them securely. There is no secret about the way to tie them on. Nothing mysterious about it.

MY WAY OF HEELING.

I get a left heel with a good outthrow that has a twist. The twist gives it the leverage, and in putting it on the bird's left leg, I throw out the point beyond the knee joint and tie securely. I always have a gaff made so the gaff will point to its proper place when set squarely on the leg, so there is no chance for heeling wrong.

On the right leg I use but one gaff for all birds, big or little, a 2-inch heel with an inset, so when put properly on the leg the point points to the middle or near the inside of knee joint. That gaff is set for head and neck and the other for body. I use a $2\frac{1}{4}$ -inch and a $2\frac{1}{2}$ -inch heel on the left leg, according to size of bird. There is only one way to heel—that is, one out and the other in. Short heels have very little set in them. You cannot throw them out much, but you heel them on the same principle. Whatever size heel you use, follow the same principle.

A sparring bird will do more execution with a straight gaff than he will with drop socket. He is not so liable to hang when so heeled. A bird that likes a bill hold or a shuffling bird, they do better with drop socket gaffs. It is a matter of fancy; mostly all heelers have their own ideas about such matters and select their gaffs accordingly.

There is no way you can heel a bird so he won't execute if the socket is set square on the leg. Change the

gaffs; put left on right leg and right on left leg. Gaffs will cut. A bird will do more damage when heeled in that manner when tired or badly wounded than if he was heeled properly. A bird when so heeled does not have to get his feet up very high to do damage, as the points are well thrown in. A bird constantly hanging in his own head is frequently caused by being heeled in too much. Yet at times a badly wounded or a distressed bird will do it when the gaffs are well thrown out. It is caused by weakness or injury.

In heeling a no spurred bird, place plenty of packing around the leg where the spur should be. Put the gaff on this packing and tie tight; no danger of cramping fowl unless you use extraordinary strength; no need of wax or other substitutes.

In heeling a no spurred bird, a substitute spur can be made in the following manner: Take a piece of buckskin and cut a hole into it the size of the spur; take a spur that has previously been cut off from a dead bird and insert the spur into the hole and glue it; it will hold fast when cold. When heeling this spur can be tied on the bird's leg first; then the gaffs can be tied on over it.

HANDLING.

Handling can be learned by practical experience only. There are so many things that come up during a battle

that it is simply impossible to draw any definite lines for the pitter to follow. There are a few lines that can be drawn that the amateur should well follow.

A handler must have a mind of his own, must keep his temper and use judgment, must be quick in action as well as mind.

A pitter should never enter the pit unless he understands the rules thoroughly. If he does not understand the rules at the critical time he will be groping in the dark. No pitter can do justice to his bird if he doesn't understand the rules.

A pitter should not argue with the spectators during battle. He gains nothing by that. He should give all his attention to his bird.

A pitter should never use tobacco while handling in the pit. Pitters that use tobacco while cleaning the bird's beak makes them deathly sick. There are two habits that should be avoided—namely, cleaning a bird's beak with the mouth and chewing tobacco while pitting. Both are disgusting and are a detriment to a fowl. A bird frequently gets blood, dirt or other matter in its eyes during battle. A pitter with tobacco in his mouth, when passing his tongue over the eye to relieve the bird, does more harm than good.

The tobacco will blind it for the time being. This practice should be strictly avoided. When a bird gets rattled it does no good to draw the blood from the

beak; besides, the scene is not pleasant for the spectators to look upon. When a bird is rattled, catch it by the beak, stretch its neck as far as possible and give a few fast jerks gently. Place your finger in the bird's crop and work gently; by repeating this as often as possible, if the bird is in good order, he will swallow the blood.

Biting a bird's comb and pinching a bird's vent is another habit that should be avoided, as it does no good and is only practiced by the inexperienced. A game bird needs no such treatment to make him fight, and it will never put fight into a bird of doubtful courage.

A pitter should always chew gum while in the pit. A bird's tongue during a long battle becomes parched. Whenever the pitter handles he should open the fowl's mouth and spit on the bird's tongue. It has a great refreshing effect on a tired and distressed bird. This should be repeated as often as the pitter handles, but a pitter should never fool with a fowl's beak only to clean it, as it annoys the fowl greatly to be constantly fooling with its beak. It causes the fowl to lose its rest during the thirty seconds allowed to be constantly fooling with its beak when there is nothing the matter with it.

After the first and second buckle when in a battle, while waiting for time, the pitter should hold the bird perfectly still so as to let him recover his wind. Do not annoy him by constantly stroking his neck and back.

That does no good and annoys the bird. A bird needs no rubbing until he becomes injured or distressed.

If a bird becomes uncoupled, as it is commonly called, to put him back on his feet, place one hand under him, catch him by the leg with the other hand, place your thumb on the knee joint, hold firmly and press the leg forward as hard as you can towards the head; then catch the other leg and repeat the same; then catch hold of both legs and press them up against the fowl's body; place your thumbs over the fowl's hip and press the legs up tight. When called to put down your bird, hold the bird with legs still against his body and place him on the ground and press on him with both hands very hard. When time is called, let go suddenly, and the fowl will spring up. Repeat this as o'ten as you get a chance to handle, but decrease in force each time as the fowl is recovering and rub the fowl's back hard. You cannot hurt the fowl by pressing on the back. If the fowl is rattled, then this treatment must not be resorted to, but if it must be done it must be done in a light and gentle manner. Squeezing a fowl when he is rattled will cause hemorrhage. A bird that is uncoupled cannot be injured by squeezing or pressing him on the back unless he is rattled. It is very essential that this should be done to put the bird back on its feet.

Another way to put a fowl back on his feet when uncoupled is to catch bird by both legs, throw his head

down and place your knee between his legs and pull hard. Repeat this until bird is on his feet again. A bird can be put back on his feet very readily in this manner when sufficient force is used. You must use force or he cannot be helped. You cannot injure the bird by using your entire strength. You must repeat this as often as you can get the bird in your hands. You must work fast, as you have only thirty seconds to do the work.

When the bird is much distressed, do not let his feet or head hang down while you have bird in your hand during the intermissions of thirty seconds.

When a bird becomes much distressed he must be rubbed vigorously. When he begins to shiver he is in a very distressed condition. Squeeze his thighs hard, spit on his knee joints and rub hard; rub his legs with thumb and fingers and pull his toes. Continue this until he gets over the shivers (or chill); rub him on the back hard, press his legs up against the body, work vigorously and fast, but do not bother his mouth or head unless there is something the matter with it.

When putting down a vicious bird he is apt to turn on you, and while he is turning the other bird is liable to kill him. As soon as you have set him down run across the pit towards the other bird. When he starts after you he will catch sight of the other bird and will not follow you any further. After the first pitting he is

not apt to turn on you again. When time is called always try and get your bird down first. You gain nothing by being tardy in getting down. A bird always measures his distance, especially in the very start, before he strikes, and a bird late in getting down is frequently whipped before he gets straightened out to strike. When your bird has exhausted himself by his exertion, you should catch as often as possible to let him recover his wind. Catch as often as opportunities present themselves and the rules will allow. You gain nothing by leaving an exhausted bird on the ground. Whenever your bird is much distressed, do not let him lie upon his back any longer than possible, as a bird will become very stiff in a very short time by lying on the cold ground in that manner, and if he is of doubtful courage he is liable to quit, as the cold ground chills them very severely when overheated.

Whenever your opponent's bird refuses to show fight, do not under any circumstances allow him to come to the scratch and hold his bird over yours, and say he will give up the fight if his bird does not show fight, but if he shows he will continue. Unless he gives up the fight, do not allow him to peck your bird while in your hands. In many cases the top bird's courage will return when allowed to peck in being held over the other bird. Let him put him on the ground. The more often he has to

catch his bird the less liable he will be to show fight if he has once run away.

A bird when cut in the gizzard will faint, and will be dead apparently. If given time he will recover. They stay in a comatose condition from one minute to one hour. Birds frequently when so affected get over it during the battle and will win, but pitter must know what ails his bird and work accordingly. At such times the bird will lie on the ground and stretch out its neck, apparently dead. Its eyes will be half open; in a few moments its eyes will be wide open, and when so it will begin to blink. At such times the bird is recovering fast, and if given time, if rules will allow, the bird will be liable to recover and win.

A bird when severely wounded, and after a severe buckle, his flesh will get soft and he relaxes, but if he is in proper order he will begin to tighten as soon as he recovers his wind. You can tell by the bird swelling in your hands, providing he is a game bird.

A bird of doubtful blood will stay relaxed. He will not swell in your hands after a severe cutting. Before putting a bird down at any time always clean the gaffs and see they are clean. This is very important and must not be overlooked. If you have a bird of doubtful courage, pit as close as possible when the fight is prolonged; do not let him lag. If you pit too far back he may turn away, but by keeping him in close quarter

he may stay and win. If he sees at such times he has the advantage he is liable to stay.

Birds at such a stage take notice of their adversary's weakness very quickly. If you have a badly wounded bird and is exhausted and you know he is game, then you do not want to force the fighting. Pit back as far as possible as far as the rules will allow. Frequently you gain a minute or more in this manner. That little time may win the battle for you. Whenever you have a tired bird badly wounded, tardy in going across the pit. When you see him looking about or look up at the ceiling, it is a pretty good sign the bird is losing courage. Birds will during a long battle cramp at times. That is caused by distress or injujry. Rub his legs vigorously, pull his toes; continue until he gets over it, which he will do if properly handled. There are so many things that come up during a battle that it is utterly impossible to describe any fixed rule for anyone to follow.

TREATMENT OF WOUNDED BIRDS.

A severely wounded bird immediately after battle when much distressed, his head covered with blood and rattling in his throat. His head should be washed at once with equal parts of whiskey and water, his mouth should be washed out and a good swallow of the liquid should be put down his throat. Nothing more should

be given him. He should be put in a coop and not molested again for several hours. Nothing excels whiskey and water to revive a badly wounded bird. When a fowl is badly wounded and distressed, and you wash him with clear water or put clear water down his throat, you are liable to kill him at once. At times in the most extreme cases, when a bird is at times thrown out for dead, when given whiskey and water will revive them. A badly wounded bird after a long battle will get very sore. They are at their worst on the third day.

If they live over the third day they generally get well if they have received the proper treatment.

A badly wounded bird's crop is in a bad condition after a severe battle. It gets at its worst on the third day. Inflammation sets in on the second day. They can't digest food. Whatever is fed a badly wounded bird of any hard substance is liable to remain in his crop. His digestive organs will not work, the food will not pass into his gizzard and he will die. Nothing should be given a badly wounded bird the first three days but sweet milk. Give him all he wants of it. Milk has all the necessary ingredients to sustain life; it is both food and drink; it is best if not too much at any one time is given him, but it should be given often. After the third day, if he is fast getting well, a little bread can be added to the milk. Then a little boiled corn meal should be added also.

His wounds and his throat and neck should be rubbed with liniment, he should be put in a sun coop where he can get the warm sun, but grit and every other hard substance should be kept from him. Positively nothing should be given him but fresh sweet milk. After he passes the third day and is on the mend he will get well very fast. When badly wounded he will be full of fever. No medicine should be given him of any kind. The milk will allay fever if given often.

If he should take the roup while in his enfeebled condition, do not give the usual remedies, or try to treat him for it until after he begins to mend from his wounds. His vitality has been sapped, he is very weak and his system is in such shape the disease won't yield to treatment (this is in extreme cases only). After the third day when he begins to recover you can then begin to treat him for roup. Birds frequently take the roup after a long battle when not properly treated. After he begins to mend, plenty of finely cut apple and cabbage should be given him.

Frequently after a battle a bird's mouth and neck and legs are very sore and his mouth is slimy. Put a couple of tablespoonful of Littell's liquid sulphur in a half pint of warm water and wash his mouth and legs. The sulphur will relieve him of the slime in his throat and heal his wounds quickly. It dries up his sores in a very few days. After drying, then grease with Littell's sulphur

ointment, or dress with liniment to relieve him of his stiffness and soreness.

In bathing the head with liquid sulphur there is no danger of impairing the sight. The sulphur diluted in warm water is good for the eyes. If there is any soreness about the eyes the liquid sulphur will cure it. It is a fine wash for the eyes if properly diluted, both for man and fowl, and for beast also.

The blood that has dried on the birds should not be pulled or scratched off. Such places should be kept well greased for a few days. The scab will then fall off very readily. Birds frequently get severe wounds under the wings. Those places should be kept well greased.

Birds that have gone through the proper process of keep will get well in a short while from their wounds. A bird that has gone through a battle of long duration will never again be fit to go against a first-class bird, no matter how long he has a free range after his battle. His sinews and muscles have been severely cut. From this cutting his muscles contract. He will get stiff, he loses his freedom of action, he will labor hard when he strikes, he will never again have the same reach. While he may not lose his speed in the first few buckles, but if the battle is prolonged he will soon get slow and won't hit as accurately as he did in his first battle on account of the contraction of his muscles.

HOW TO TEST A GAME BIRD.

A great deal of unnecessary punishment is inflicted upon a game bird to determine whether he is game or not by the inexperienced. Frequently birds are put through a three and four days' test to see whether they are game or not. This so-called test consists of putting the bird through a needless cruel torture by putting a pair of very small heels on a bird. Sometimes one heel only to prolong the agony, and let him cut away at the bird to be tested. After he has been sufficiently punished for one day he is put away until next day. Then the performance is repeated, and this is kept up from day to day until the bird either dies, hacks or runs away, which any game bird in the world is liable to do under this treatment. You gain nothing by this. Only this, you simply see how much of this senseless and needless torture that particular fowl will stand before he dies, hacks or runs away. You certainly gain nothing else.

A game fowl after going through this process is put into his coop. Next morning he is stiff and sore, his body full of fever. Probably his throat full of slime from wounds in his throat. Probably he is so badly cut he cannot get his head down to drink, and if he did he couldn't swallow. You take him out and you repeat the same process you did the first day. You do this until he dies or runs away. He will certainly do one or the other, and you have gained no knowledge, only as to

that particular fowl. When a bird is sick or badly wounded he should not be fought, for when in that condition any bird is liable to run away. A game fowl is not so susceptible to pain as a human being, because they haven't the nervous system the human has. The more nerves the more keen the pain, but he is of flesh and blood, and is not made of iron, and is susceptible to ills and disease and pain also. You cannot go on indefinitely torturing him. Nature is bound to give way. You can go so far and no farther. There is a limit to his endurance. Whenever a bird's vitality has been sapped he is in a very frail condition; his power of endurance is gone, and when in that condition he is a poor subject to stand punishment. The three days' test is useless and senseless, and should not be practiced.

THE WAY TO TEST A BIRD.

Take two brothers; let them be the same weight, and should be sound and well and in good order. Put either one or two short or stubby heels on both of them and let them fight until one is dead or until you think they have had enough. Should one die, note the way he took his death. The other one put away until morning. Take him out of his coop and drop him on the floor. Hold another bird in your hand towards him. If he is a game bird his actions will tell you. He will come to

you and will act determined. Every move he makes will convince you he is ready for battle. He will crow if he can. If he can't he will make an effort. He will come to the front in his coop and get in line with the balance for his rations. If you give him food and he is too sore to eat he will try. He will not sit down; he will constantly stand, shake his head, be full of nervous energy. If he is a dunghill or of doubtful blood, when holding a bird to him he will back off, will not crow, will make no effort to eat and hang back in his coop and will probably sit down and probably hack. A good game bird when put into his coop badly wounded after battle, and he has some little time to cool out, will still front up to his door ready to do battle. His actions will show you of what blood he is. A bird of doubtful blood will act the reverse, will hang back in his coop and sit down.

There are a world of game birds that will take their death in battle that are considered of the highest class and blood, that will not stand the so-called three or four days' test. Occasionally you get one that will hang on a long while and will not hack before he dies, but he is a rare individual, and it is no positive proof his brothers of the same blood will do the same.

A badly wounded bird after a severe battle is never fought on the second day after the battle. Why? Because he is not fit and liable to run away. Just so with going through the three days' test. The bird is not fit

to stand the punishment on the second day, and is liable to run off. If he is liable to run away in battle he is also liable to go when put to the test.

On the second day after going through the first day's trial fever sets in; as soon as fever sets in his vitality begins to decline, and every time you repeat the punishment his suffering is many fold greater than on the first day. He then suffers from his wounds and fever combined. He is then a poor subject to stand punishment. When in that condition his vitality and strength are gone. The more his vitality is sapped the less punishment he can stand. When his vitality and strength are gone his power of endurance is ended. He is all in; he can endure no more.

Nature has given away, hence he must either die, hack or run away. Fowl of strong constitution will endure more than fowl of weak constitution. That is the reason some fowl will stand the test longer, but all must succumb to this treatment if you continue. A game cock should be fought only when he is well and fit. After a battle he should not be fought again until entirely well of his wounds and put in thorough condition. If you fight a badly wounded bird you cannot tell with any degree of certainty how long he will stay, no matter who bred him, and it is unreasonable to expect it.

HACKING AND DUNGHILL BIRDS.

Birds hack at times from no apparent cause. A bird hacking is not a certain sign that he is not game. Good game birds hack frequently. While moulting a male will hack at times when there is no other male in sight. A good game bird that has had a good range will hack at times when run down to catch him. A bird should never be run down. He gets man hacked. When so he is hard to bring around again. He hangs back in his coop, when taken out he will hack at times. He is hard to order, while in the pit he is constantly watching the pitter; while trying to dodge the pitter he gets killed. Such birds are very unsafe for battle.

A bird put on a range where he is constantly abused will hack. Continually throwing at him will hack him. A bird when sick will hack.

A bird when confined where there are a large number of birds confined, will hack at times from hearing the other birds crow. Good game birds do this quite often.

A bird will hack at times when seeing another of the same color he has been running under.

All hacked birds should be put out on a range with some hens until they recover their courage. Whenever birds are inclined to hack there is always an element of danger of their running away when fought.

A bird when in battle that will run away without being wounded is not a dunghill by any means, but if this

same bird fights and gets warmed up and gets wounded and then runs away, he is certainly a dunghill.

A sound game bird when badly hurt will not run away. He fights so much the harder. A bird that gets badly wounded when put down on his score, if he hesitates or refuses to cross the pit, that will wait for his opponent to come to him, has a bad streak in him. Any game bird is liable to hack, and no game bird if sound and well when fought, when in the heat of battle, will run off. If he does run at such times he is a dunghill.

A hacking bird at times when stung with a gaff will cause him to fight and take his death.

A sick bird should not be fought, and if fought is liable to run off.

A bird that has been severely wounded that will hack when put into his coop immediately after battle, before he has thoroughly cooled out, is not a thorough game bird.

Good game birds that have been severely wounded frequently hack one or two days after they have been through a severe battle. Frequently a bird dies of his wounds and hacks before he dies. A full brother equally as severely wounded may die from his wounds and not hack.

A game bird of good constitution will hardly ever hack before he dies of his wounds.

A bird of weak constitution, after his vitality is

sapped, is liable to hack before he dies of his wounds, although he had fought a long battle and would have died game in the pit. A good strong constitution has a great deal to do in the action of severely wounded birds.

Constitution also has a great deal to do with the recovery from wounds. A good constitutioned bird will get well from the wounds that will kill a weak constitutioned one. Inferior bred birds when fought will sulk when badly wounded; some will act as if they were dead; every little while they will jump up and kick a lick, then lie down again and make no effort to fight. Some sit down and draw back their head and press their beaks close to the ground and allow their adversary to hit away and make no effort to fight. Some are dead, apparently; when put back into their coops they begin to crow. When put down on their score will refuse to cross; will wait for his opponent to come at him, and when he comes to him he backs off and fights on the defensive. Such birds are classed as dunghills. While not really dunghill fowl, they are of low class from some inferior strain.

CUT DOWN BIRDS FOR BREEDING.

Birds that have been cut down and been thoroughly tested as to their gameness during the battle make the safest brood cocks, especially for the amateur; if they

see the birds fought they cannot be deceived. After a severe battle a bird cannot have intercourse with the hens for some time after. They should not be put out on a range at once after a severe battle, as they catch cold and they stiffen in their joints. They should be confined until they recover from their wounds; then they can be put out on a sunny day. If given a good range after they get well they will soon limber up so they can have intercourse with the hens.

BIRDS THAT HAVE BEEN ORDERED AND NOT USED—WHAT TO DO.

Birds that have gone through the process of keep and have been primed and drawn for battle cannot be kept in order indefinitely. If primed for an occasion and not used, they must be put on a range for at least thirty days before putting them through the process of keep again. Before putting them out they should be relaxed, several feeds of soft feed should be given them; also plenty of green food and plenty of sweet milk to drink. If weather is too severe they can be put into a pen and given plenty of litter to scratch in. They will do fairly well, but nothing to compare with a range.

If birds are primed for an occasion and there should be a postponement for a week, birds can be kept in pretty good shape by relaxing at once by feeding bread and milk all they can eat and given green food,

such as apple and chopped cabbage on the first day and plenty of barley water. Then put them back on their keep the following day; feed just like they had been fed, but cut the work to one-half or a little less. They should be kept in the scratch coop as much as possible and encouraged to scratch. A hen should be dropped in the cock house on such an occasion every day for a little while. It wakes up the sleepy birds, causes new life amongst them, food works through them better. After a certain period of confinement a fowl deteriorates. About fifteen days is about as much as he will stand one continual strain. Then they begin to lose vim and dash, feathers begin to wilt, they lose their vigor. A great deal depends, however, on the feeder. If in the hands of an experienced feeder they may be kept longer, but it is not safe.

FIGHTING STAGS (COCKERELS.)

Stags when fought are liable to run away unless they have age and have been on a range with hens. A stag ten months old that has been on a range with hens with no other bird running over him, if he runs away when fought is a dunghill. A stag running under another bird on a range is liable to run away when fought against a bird of the same color, if sufficient time has not been given him to forget him. Game stags will do it fre-

quently; in the very heat of battle they suddenly turn and run away. They would not run from a bird of different color, with any degree of certainty of the stag staying. He should be given a range with hens until he is eight or ten months old. Unless that is done, when fought he is liable to run away.

A large number of stags can be put on a range together; 50 or 100 can be put together, providing you keep the hens and pullets away from them. When ready to use them they can be put with the hens on a range for ten or fifteen days. That brings on their courage at once. All stags should be culled before putting them on a range. A stag should not be put on a range where he is continually abused; he will soon lose courage and become worthless.

TAKING UP AND TRIMMING STAGS.

As soon as stags begin showing attention to the hens they should be separated. They should be trimmed and put on a range. In trimming his comb and wattles should be trimmed close, for two reasons—first, if trimmed closely it will leave no hold for his adversary when in battle; second, when a cock is carrying a large comb and wattles, when matched for battle he is giving away just that much weight whatever the comb and wattles will weigh. They weigh from one to four ounces at

times. It is always rutable to give or take two ounces. When it comes to matching a cock with comb and wattles against a closely trimmed cock. If the cock with comb and wattles weighs five pounds and the other five pounds and two ounces, that is a match, the comb and gill cock is conceding the other not alone the two ounces overweight, but probably from two to three to four ounces, the weight of his comb, making in all too much weight to be given away. He is then at a great disadvantage. Comb and wattles are not considered when matching for battle. No allowance is made for them. When in a prolonged battle a cock with long comb and wattles will bleed freely when cut in comb or wattles. They then become a decided detriment to him; also to the pitter when bleeding freely when he gets down. Dirt and feathers adhere to his comb and wattles, blood mixed with the dirt from the pit gets into his eyes, besides his comb and wattles make an easy bill hold for his adversary.

Stags when taken up should not be confined for any length of time in any limited space. Confinement retards them in their growth and development. They will never catch up with a fowl that has had a free range. Stags when they get a little age on them are very prone to jump on the old cock whenever he shows signs of weakness, especially in wet weather. At such times they are very apt to fight each other.

FOOD FOR MOULTING FOWLS.

Birds in moult require good feed and a variety that will produce feathers. To make a good ration get a piece of cheap beef and a piece of suet. Put it into a vessel and cover and boil it. Drain off the water and use it for mixing the following food :

Oil meal, 1 pint.

Cracked corn, 1 gallon.

Ground oats, 1 gallon.

Bran, 1 gallon.

Mix well and pour the water over this; feed in a crumbly state; can also use milk in place of the water.

ANOTHER GOOD FEED.

Boil some potatoes and turnips in the drained beef liquid and then mash them up and add enough bran to make it crumbly; feed it warm. This is one of the best rations that can be had.

CHARCOAL FOR FOWL.

Charcoal is one of the best purifiers of the animal system which we have. When fowl are afflicted with diseases charcoal is of great service to them. It helps the digestive organs and acts as a stimulant by purifying the blood and toning up the system. It is also a great

benefit to healthy fowl. It keeps them healthy. Place it where they will have access to it. Charcoal is necessary for fowl in the spring and summer months, for that is the time they need a blood purifier. It need not be mixed with their food, but should be broken up in small pieces to the size of a grain of corn. If you have no charcoal, sift the wood ashes and pick out the burnt black coal and break it up and place where they can get at it easily. A great many diseases can be avoided by keeping a good supply where the chickens can get what they want of it.

If you place a few ears of corn in the oven and leave them there until they are burned black to the cob, and feed the fowls what they want of it, it fills the place of charcoal.

FOOD FOR LAYING HENS.

Bran is a splendid food for poultry. It contains a much larger proportion of lime than any other food derived from grain. As the shells of eggs are composed of lime, it is essential that rich food in lime be provided. Clover is also rich in lime. When clover and bran are fed, the fowl will not need other mineral matter to provide lime for shells of eggs. As long as hens are laying in the summer and have a free range they will not need much food, but when they stop laying bran should be fed them. In winter, bran and clover are more essential,

as the fowl cannot get any green food. The bran and clover should be scalded; when cooled off it should be fed. In winter it should be given hot in the morning, a little salt should be added. Cooked vegetables added makes an excellent food. In summer if you feed grain, let it be oats. Corn should be given at night when the weather is cold. A variety of foods should be given in the winter.

When fowl are confined provide litter for them to scratch in; throw in small grain to make them scratch. Keep them in a warm place; warmth and exercise will make eggs; food alone and no exercise will not make eggs. Green bone should be given them three times a week. In warm weather the bone is liable to become rancid, even putrid; when so it should not be fed. Milk in any form is good for fowl; water should be fresh and clean and should be kept in a cool place in summer and changed several times during the day if they haven't access to running water. Green food should be fed in winter in some form if it can be obtained, not because such food is valuable for egg production, but it aids their digestive organs and keeps them healthy. It is in dieting more than the amount of food allowed that the best results are obtained. A variety of food promotes health.

Millet seed should be fed them. It is a fine egg producing grain. A little beef chopped fine either raw or

cooked given three times a week should be given them. Hens need less assistance in the summer season in procuring animal food than in winter, because worms and insects are utilized; to make them lay during cold weather it is essential that animal food be provided; this may be done by feeding meat, cut bone, or commercial ground meat. If milk is given only a small quantity should be given at a time. If left standing in the sun it not only sours, but it soon becomes decayed. It then becomes injurious to fowl.

FEEDING CHICKS.

Chicks when first hatched need no food or drink for thirty-six hours; it is best to let them remain under the hen for forty-eight hours if the hen is content. You greatly injure little chicks by removing them from under the hen too soon. Chicks treated in this manner will come off the nest vigorous and strong.

Chicks are more injured by kindness than anything else. Let the little chicks get hungry and cry for food, and you will have chicks that will grow up and be healthy. Chicks are very susceptible to bowel trouble, and that is brought on principally by overfeeding. Overfeeding is a great evil.

When you feed do not give more than they will pick up clean quickly. Feed often, but not much at any one

time. First thing to do for them is to supply them with some clean sand for grit; that is absolutely necessary. Sprinkle the sand in the bottom of the box you put them in, then scatter your food on this sand and the chicks will get it.

If you cannot get sand, as a substitute put some egg shells in a pan and put them in the oven in the kitchen stove and subject them to a slow heat until dried out. They will then be brittle and are easily crushed into small particles.

First food: A little grits cooked dry is a good food for them; a Johnnie hoe cake given dry and mashed fine; can add a little milk; can add also a hard boiled egg chopped very fine; egg should not be fed too often, as it causes constipation; when eggs are fed it is best to prepare them in this manner.

Scald them with hot water, then beat them and thicken to suit with corn meal. A little canary bird-seed is also a good food for them. When six or seven days old, a little cracked wheat, add a little finely cracked corn. They do better on dry feed after they are a week old, after 10 days a little finely chopped beef is also good for them, if not fed too often. All fowl should be fed in a crumbly state; nothing should be given them in a sloppy state. Young chicks require frequent but light feeding.

The hen and chicks should be placed in a dry coop on

the grass where the young chicks can get the grass whenever weather permits. If indoors they must be kept on soil, or boards covered with soil. This is absolutely necessary to the welfare of the chicks.

Milk in any form is good for them. When feeding sour milk it should be prepared in this manner: Place sour milk in pans and set over fire to heat through well; when the whey may be easily separated from the curd, it should then be drained to a dry, powderly mass, when it will be fit to be fed.

Chicks should not be given water in the morning before being fed, nor should they be turned out before the dew is off the grass, nor should they be let out in rainy weather. When they once get wet and chilled they are apt to perish. Their food should be put in a trough or glazed vessels; they should be fed five times a day until 15 days old, then three times a day.

Young chicks that feather too early is a sign of weakness. Some feather the first two or three days. They are liable to perish. Add a little linseed meal and a little chopped beef to their food. There is twice as much nutriment in linseed meal as there is in cornmeal. One gill of linseed meal has more bone forming matter than $1\frac{1}{2}$ pints of corn.

Newly ground sweet oatmeal is good for them, but pungent rancid meal is very injurious. Don't feed bread soaked in water at any time. Don't allow them to have

stagnant water. Don't keep too many chicks at any one place. There is no difficulty whatever in hatching any number of chicks, but when the young fowls are crowded together and are living on tainted soil they invariably become diseased and die with great rapidity.

In all cases where a large number of fowls are congregated together the ground becomes contaminated by the excrement of the fowl, the food is eaten off the soiled surface, and disease breaks out among them, and rearing chickens successfully is out of the question.

A few drops of Littell's Liquid Sulphur put into the chicks' drinking water is very fine for them. Put a teaspoonful in a quart of water; let them drink of it about three times a week. It will aid digestion, it acts gently on the bowels, and if given this to drink regularly a louse won't stay on them. It will not in the least injure the fowl, young and old, if it doesn't do them any good.

SETTING A HEN.

When setting a hen she should be greased under the vent and the butts under each wing. After she has chicks, when taken from the nest she should be greased again with sweet oil and oil of sassafras. The nest in the summer should be made of soil. After making the nest of soil spread around the edges a little straw. In the winter the nest should be made of straw; sprinkle

with a little snuff. Tobacco stems makes a good nest. Don't make the nest too hollow, for that causes the eggs to press together. If the egg shells are thin they are easily broken. One never gets so good a hatch where some of the eggs have been broken. It fills the pores of the eggs and shuts out the air. Make the nest more flat; that prevents the eggs from pressing together.

When an egg has been broken, take the eggs from the nest and wash them in warm water, then wipe dry and replace them under the hen.

It is always best to set a hen at night. Dummy eggs should be given her the first two or three days until she gets thoroughly settled, then these can be taken from her and replaced by the proper eggs.

When a hen leaves her nest and the eggs get chilled place them at once in warm water; let them remain there for some little time. Then take them out, wipe them dry and replace them under the hen. If not too much chilled they will hatch.

Setting hens should have a pen where there is food and water and grit at all times. So when she gets off her nest she can get food and drink and have her exercise and dust bath in the pen. She will find her way back to her nest. Outside hens cannot disturb her when so confined. A number of hens can have their nests in the pen at the same time. Can make the pen so it will hold any number of setting hens.

Hens from one to three years old make the best breeders. The eggs of pullets are often infertile under the most favorable conditions. A setting hen should be fat, as the drain upon her system while setting is severe. A thin hen is liable to leave the nest. She can't stand the strain. The task is too much for her. Hens should be set in pairs. The eggs should be examined on the seventh or eighth day, and as it frequently happens, part of the eggs are not fertile. All fertile eggs can then be put under one hen. When hens are scarce this is quite a saving. The hen taken from the nest can be reset on fresh eggs if both bring out a full hatch. The young from both can be given to one hen.

A hen can be set in midsummer as well as any other time, and the chicks can be successfully raised. The lice must be looked after, as they are very bad in midsummer, and shade must be provided. If chicks have a shady range there's no trouble to raise them. Thirteen eggs are as many as should be given a hen. A small hen should not be given over eleven. The eggs should be uniform. The largest eggs do not always produce the largest chick. Eggs of medium size are the best.

HOW TO MAKE COOP FOR HEN AND CHICKS.

One of the best coops for hen and a brood of chicks can be made cheaply in the following manner: Make a

box of any rough material two or three feet square; make it in the shape of a dog house, so it will turn water; make it air-tight if possible. Put a sliding door in front large enough for the hen to enter, cut a hole on each side and put wire screenings of a 6-inch space on each side. That will admit air and keep out all insects and mosquitoes. Make a regular sun coop of lath four or five feet long. Cut a hole in the end and place it against the box so the hen can go from the solid coop to the sun coop. At night the hen and chicks can be driven into the coop and the door let down. Nothing can get at them. In the morning, if weather permits, the slide can be lifted and the hen and chicks can be let out into the sun coop, the chicks to scamper about, and the hen will have plenty of room in the sun coop for exercise. The coops can be moved to some fresh, shady and grassy spot every day. When cooped in this manner they can be housed in rainy weather, and are perfectly safe from verments of any kind, and are very little trouble, especially where one has a large number of chicks to look after every night.

SHADE IN THE SUMMER FOR CHICKS.

Shade in the summer is particularly essential to the growth and general welfare of poultry. The orchard is the poultry's paradise, and the orchard is also benefited

by their presence. So keep the two combined. Fowl do your orchard an immense amount of good. Fowl yarded up for breeding purposes must be accommodated with abundance of shade, and all such yards should be planted to good shade.

In the absence of trees temporary shade should be supplied. A low shed, with a thick roof of straw or branches cut with the leaves on, makes a good shade. The shed may be merely posts four feet high with strips nailed on to support the roof. It should stand in some place where the air can circulate freely, and where there is no chance of surface drainage to make it wet and muddy during rainy weather, the surface should be made fine and mellow by spading it over once or twice. The hens will luxuriate in the cool earth, in which they will soon dig wallowing places, and not only be healthier but will produce more eggs than they will if compelled to find shelter along fences and under weeds where whatever air may be moving cannot reach them.

In August sow a little patch of rye or alfalfa clover. This will give them pasturage all winter and spring. Alfalfa clover is the best green food we have for fowl.

FEATHER EATING.

Feather eating is a vice. The learning is invariably accomplished when the fowls are confined in small rooms.

Under such circumstances, if there is any mischief that can be invented, they will acquire it. A fowl in attacking a companion incidentally plucks a feather, and pleased with the taste, swallows it and seeks another. Now, in close quarters, the younger of the flock can be readily cornered by their superiors. Hence, the second requisite is gained. Hens are observing, and are especially on the watch with jealous greediness when they notice one of their fellows eating something. When one sets the example they all imitate, and in a few days they become a set of cannibals, eating each other alive. They will not alone eat the feathers, but skin and flesh also. Feathers not wholly matured contain more or less blood in the quills, and form very choice morsels, which will be greedily plucked and devoured by the whole flock; provided, first, that they learn how, and afterwards, that they have the opportunity. Fresh meat will not stop them. A flock of fowls that have once acquired that habit had better be killed at once, unless the season of the year permits and the premises are such that the fowls can be given a wide range, so they may disperse and avoid each other. In cold weather, and during a storm, when your fowl naturally huddle together. Keep them scratching and picking legitimately. Throw among them some dry leaves or hay leaves or a bundle of dry fodder, and after they strip the leaves off, put in a fresh lot. Gather the leaves in fall and keep them dry until

you want to scatter in your hen house in cold weather. Scatter small grain among the leaves. To cure a severe case, put a thin wire around the upper beak near the nostrils, or near there as possible, and twist the wire on top of the beak and let it remain there. It will prevent them from doing any damage and will not interfere with their eating and drinking.

EGG EATING

This habit is most frequently acquired by an egg being accidentally broken. A hen tastes it, and finds it so good that she soon tries to procure some more of the dainty by breaking the eggs. The habit may also be acquired by not having plenty of lime and gritty matter, where she can get what she requires. Her cravings for that material must be satisfied in some way. She picks an egg and tries to obtain some. This, of course, leads her to tasting the egg itself, and gets into the habit of egg eating.

Undoubtedly the habit begins in most cases by the accidental breaking of an egg on the floor, or in the nest. There may not be sufficient straw in the nest. A certain portion of the pullets, when first begin laying will refuse to use the nesting boxes. If caught when discovered making a nest on the floor and penned in one of the boxes, it usually breaks up the habit of depositing

the eggs on the floor. But if this does not cure her, her owner had better kill her, or he will have a flock of egg eaters on hand. They soon learn each other. When a hen learns the habit of eating eggs she usually goes to the same nest for a fresh supply. They don't think of going to other nests. Close the nest entirely, force her to go outside to look for eggs. She will soon forget the habit.

FERTILIZED AND UNFERTILIZED EGGS.

An unfertilized egg is merely a combination of shell, white and yolk, without life or vital force. Mate the hen and at once there is a change. The whole nature of the egg is transformed. After the male has had intercourse with the hen, life germs begin to develop as the temperature rises in warm weather. The process is slow and will never produce a chick. Yet it produces an action that destroys the life of the egg. Then comes decomposition and decay. The result is a spoiled egg. If the hen had not been mated, and the egg had not been fertilized this process would have been impossible, and the egg would have kept many times as long before becoming spoiled. For preserving, unfertilized eggs are worth more than eggs from mated hens. Hence, for production of eggs the cock is not only unnecessary but detrimental to their keeping qualities.

HOW TO KEEP EGGS FOR HATCHING.

Place the eggs on racks in a temperature of from 50 to 60 degrees, and turn them from two to three times a week. In that manner they will keep fresh a month. But if turned every day they will keep in a perfect state much longer. When an egg rests in one position too long the yolk sinks to the bottom of the shell, the air works through the pores of the shell, and attacks the animal matter (the yolk) and decay sets in. The turning of the eggs has been found to be the most practical way of avoiding this. A box or a turning tray can be used.

EFFECT OF FOOD ON EGGS.

Hens that are allowed to pick up their living about the manure pile produce eggs with thin yolks and whites. The eggs are most always tasteless; when boiled or poached are not appetizing. The flavor is not pleasant.

When hens are fed on grain and milk, there is a decided difference in the flavor. Hens fed on grain alone do not produce eggs of as good flavor as those that have been given milk. The quality of the eggs depends on the food the hen eats. The flavor is influenced by the food the hen receives. Foods with strong flavors impart an injurious flavor to the egg. It has been tried and proven beyond question that flavor can be fed into the eggs. To insure finely flavored eggs it is necessary to restrict runs so that no considerable amount of food

which will produce badly flavored eggs can be obtained. If hens are fed onions, or onion tops, or turnips, they will produce flavored eggs.

HOW TO PRESERVE EGGS.

Take one pint of salt and one quart of fresh lime and slack with hot water. When slacked add sufficient water to make four gallons when well settled. Pour off the liquid into a stone jar. Then with a dish place the egg in, tipping the dish after it fills with the liquid so they will roll out without cracking, for if the shell is cracked the egg will spoil. Put the eggs in whenever you have them fresh. Keep covered in a cool place. They will keep fresh a year. Another way: Rub the eggs with vaseline and put them in lime water. Place the vessel in a cool place. Wash them clean in warm water before preserving.

CHILLED EGGS.

Eggs that are left exposed during the early part of incubation are quickly chilled and spoiled, but after the sixteenth day they are not so easily spoiled or chilled, although the hen may be absent from her nest for twenty-four hours. That applies to spring and summer only. If the eggs are very cold and have long been chilled, put them in warm water, let them remain there until they get quite warm, then wipe them dry and put them back under the hen. The chances are, if they

have been impregnated they will hatch, if not too much chilled.

TURNING EGGS.

It is not necessary to turn the eggs before or after the hen begins to hatch. The contents are movable, and will remain so until they have been brooded on by the hen one week. When the egg becomes attached to the membraneous lining of the shell, then the time for turning has arrived. This the hen does herself.

HOW SOON AFTER MATING AND HOW LONG AFTER REMOVING MALE ARE EGGS FERTILE.

A certain percent. of the eggs laid on the second and third days after mating may be fertile. It is best not to use the eggs until the sixth day. The eggs will be fertile for twelve days after the male is removed. They may run longer, but there is nothing certain.

One man claims he bought two hens and had no male. The hens laid 15 eggs in 17 days. He set one hen on the 15 eggs and the result surprised him. She hatched out 12 chicks, and 3 did not hatch. He broke open the 3 eggs and found 3 dead chicks, showing they had been impregnated, showing thereby the access of the cock is not constantly necessary.

FERTILE EGGS.

The egg for hatching should be tested on the seventh or eighth day. At seven days a fertile egg will have a black spot in the center; if perfectly clear, unfertile. The best method of testing is to use an egg tester; they are more certain. Clear eggs which, after seven days of incubation, show no signs of fertility, no veins, the yolk can be seen floating with every move, must be taken out of the nest, and replaced with other eggs. They are good for cooking purposes.

THE SUPPOSED NUMBER OF EGGS A HEN CAN LAY.

First year after birth.....	16 to 20
Second year after birth.....	100 to 120
Third year after birth.....	120 to 135
Fourth year after birth.....	100 to 115
Fifth year after birth.....	60 to 80
Sixth year after birth.....	50 to 60
Seventh year after birth.....	35 to 40
Eighth year after birth.....	15 to 20
Ninth year after birth.....	1 to 10

TO CURE AN EGG EATING DOG.

Dissolve a little caustic soda and lay the nest egg into it. Take it out and let it dry. When dry put it back into the nest. When the dog takes it into his mouth, the moisture will dissolve the soda. He will after that bother no more eggs.

NEST EGGS.

In using China eggs for nest eggs, they should be cov-

ered in the winter with white flannel; when the thermometer records zero the egg is also at zero. The temperature of the body of the hen is about 102 degrees. When the hen goes on the nest to lay the naked portion of the body comes in contact with the ice cold substance; it is torture; she becomes chilled.

SHIPPING EGGS FOR HATCHING.

When shipped for hatching, on their arrival they should not at once be placed under a hen, but should be placed in a natural position and let lay for twelve hours to become settled.

EGGS IMBIBE FOREIGN ODORS.

Eggs imbibe foreign odors with the utmost readiness. The lightest contact with some decided odors will influence the flavor. Eggs that are packed in cases of green wood will be ruined on this account, and even damp straw will give them a fusty or disagreeable odor.

BANTAM GAMES.

The popular idea that Bantams originally descended from a distinct species of fowl is entirely erroneous. Within a few years diminute breeds of game fowls have sprung into existence, and have gained very great favor among fanciers. They are produced by breeding in an in game fowl, which diminishes the size. The hens as mothers and setters are unsurpassed, being active for-

agers they will maintain themselves with very little food.

SHIPPING FOWL.

In shipping fowl it is very unsafe to ship fowl of much growth together. Hens should have a male with them. He will quiet them to some extent. It is unsafe to ship hen and male, even, constantly being thrown about while in transit irritates them. They soon get to fighting and before they arrive at their destination they are ruined. They should be shipped in single coops if they are of good size. When sent a great distance a cup should be nailed in the coop with an opening above so water can be put into the cup while in transit. Plenty of finely cut green food should be given. When shipping any great distance, corn should be put into a large-sized can and water poured over the corn. Can should be nailed in a corner of coop up off the bottom of the coop. When treated in this manner they can be safely shipped a great distance.

REMEDY FOR GREASING FOWL FOR LICE.

The most meritorious remedy for lice is sweet oil and oil of sassafras. To one-half pint of sweet oil add two ounces of oil of sassafras. Grease the fowl under the vent and the butts under the wings the size of a silver half dollar.

One-half pint of oil will grease a hundred fowl and will kill and drive off every louse. There is nothing to compare with sweet oil and oil of sassafras for lice. Once a month is sufficient to grease fowl. Unless the hen has young chicks she should then be greased once every two weeks. The young chicks should be greased on top of the head if they have lice. If the old hen is kept greased there is no necessity for greasing the chicks.

No insect can stand the odor of oil of sassafras. Oil of sassafras is very penetrating, and if used in a pure state will kill the chicks. The sweet oil is absorbed through the pores and the powerful odor of the oil of sassafras is retained for quite a while. There is no merit in powders only for the time being. As soon as the fowl has a good wallow or dust bath the lice powder is all gone.

The hen should be greased before setting, and as soon as she has chicks when taken from the nest should be greased again. All birds coming in off their range should be greased as soon as possible on their arrival, as all fowl that have been running out are more or less lousy.

CHICKEN LICE.

Vermin causes many failures. They so weaken the fowls that disease takes them off. When fowls are in a debilitated condition, but with every advantage in their

favor as far as food is concerned, their quarters must be looked after. If your chicken house is lousy the fowl won't thrive. Lousy chickens are very susceptible to many ailments.

INDICATIONS OF LICE.

When chickens have lice upon them their feathers usually look a little rough. Eyes pale all around and sunken; there is a line underneath which gives the fowl a strange appearance, as if the beak were too long for its head, and the wings too long for its body. The wing flights and the horn of the beak grow, but the body seems to loose weight in proportion. Even healthy looking young fowl should be looked after.

Lice settle under the vent and under the wings of an old fowl.

On a young chicken they settle on its head and neck. Grease the old fowl under the vent and the butt under each wing a space the size of a silver half dollar.

Young fowl, grease their heads, but it must be done cautiously, as too much grease will kill young chicks.

SPRAYING CHICKEN HOUSE.

Chicken houses should be swept every morning. Should be whitewashed twice a year. Scatter a little

lime once a week on the floor. Throw some fine lime dust against the wall; anywhere where the mites are liable to find lodgment. Pour kerosene on the perches and also a little in the nests. Chicken houses should be sprayed every few weeks. A good spray is made as follows:

Coal oil, one gallon.

Crude carbolic, one-half pint.

Oil of sassafras, 1 gill.

This will kill the lice; also the nits.

Spray once a week with a solution of Brown's naphtholium. Will clear chicken house of both lice and nits.

Another good cheap spray is one pound of whale oil soap. Pour over it one gallon of hot water. After being dissolved add two gallons of warm water; add two gills of oil of sassafras.

Another good spray: Boil sassafras roots; make a strong liquid and spray.

Sassafras poles should be used for perches.

Fowl must have a good wallowing place or the spraying won't do much good.

A splendid remedy for lice: Tie small narrow-mouthed bottles to the perches five feet apart and fill with bisulphide of carbon; leave the bottles open. When the bisulphide has evaporated, refill the bottles. This method will positively clear your chicken house of lice.

WINTER QUARTERS FOR FOWL.

Properly arranged winter breeding quarters: It is necessary to have three different apartments, one for roosting, a scratch pen and a run well fenced with wire netting. The roosting place proper need not be large, but the run should be as large as possible. In the scratch coop should be kept leaves, straw or hay, plenty of litter in which the grain should be scattered to keep the fowl busy. The roosting place should not be used for any other purpose; should be swept clean every morning; floor should be of soil; if boards are used they should be covered with a couple of inches of soil.

GRIT FOR FOWL.

Grit should be composed of sharp gritty matter, such as broken crockery or granite, broken very fine, flinty matter. Round smooth pebbles won't answer; they do not grind the food. Coal ashes make a good grit; fowl pick out what they want; the ashes should be sifted.

HOW TO CURE HATCHY HENS.

To stop a hen from hatching, confine her in a pen with a cock for three or four days where there are no nests. Another good way: Place her under a tub or box, raise the tub two or three inches from the grounds,

set it on brick or rock; by letting her stay under there two or three days she will soon get over her hatchy spell.

ROUP.

Roup is the most destructive of all diseases the fowl is heir to. It destroys thousands upon thousands every year. One of the main causes why it destroys so many fowl is because so few can diagnose a case of roup.

WHAT IS ROUP.

Roup is an inflammation of mucous membrane lining of the air passages, which makes its way into the cleft palate, the mouth, the eyes and throat.

FIRST SYMPTOMS.

A high fever in the legs and head; sometimes in the head alone. A watery discharge at the nostrils. A slight swelling around one or both eyes; sometimes no swelling, but a frothy spit in one or both eyes.

In its second stage it becomes diphtherial roup. It becomes ulcerous, it very much resembles diphtheria and croup in the human family. Head and throat swell, both eyes close and a heavy yellowish discharge at the nostrils. Whenever the throat and head swell the fowl will soon die if not relieved.

Another form of roup is dry roup. There is no swelling of the head and no discharge at the nostrils. The fowl stalks about in a weak, shambling gait; a watery

discharge from the bowels. The disease has settled on the lungs. The fowl wastes away in flesh. Such fowl should be killed. Their vitality has been sapped.

They will not recover. If they do they will never be fit again for anything.

Thousands upon thousands of fowl are killed every year by breeders that can't cure the disease. A fowl with a bad case of roup, unless it is valuable, had better be killed.

HOW TO CURE ROUP.

By following my instructions strictly you can cure the worst case of roup in a very few days.

All fowl take fever before they take roup. Roup follows fever. As soon as a fowl has fever, give 2 grains of quinine every 2 hours; take away food and drink; get Littell's Liquid Sulphur (every breeder in the country should have a bottle on hand always); dilute a teaspoonful in a teaspoonful of water; get a little glass syringe (called a dropper) and inject a dose into each nostril; put a little in the bird's mouth also; in about twenty minutes after, inject a dose of Flock's Roup Powder into the nostrils; repeat these two injections three times a day. The first injection of the sulphur may stop the discharge from flowing; if it doesn't stop it in the first injection it will check it. The next two injections will stop the discharge, providing you inject the stuff properly. By using the two remedies it will positively

cure roup, no matter how bad or how far gone, in from one to three days.

Quinine should be given every two hours until fever is broken. When the fever is broken the disease soon yields to treatment. It will take from 2 to 4 2-grain capsules of quinine to break the fever. The sulphur will cure the roup without breaking the fever, but it takes longer. The sulphur will also cure without Flock's Roup Powder, and the Roup Powder will cure the roup without the sulphur, but the two combined make a sure and positive cure without delay. If the discharge is very bad the fowl's head should be washed in warm water; add plenty of the sulphur; bathe his mouth and head; it will not hurt the eyes; it will do them good. If the disease is of long standing and won't yield to diluted sulphur, inject full strength into the nostrils. After injecting the liquid, drop the fowl, as he will struggle. He will choke up for a moment or two, get black in the face, but it is only momentarily. After the discharge has stopped flowing there will be a little thin watery discharge for a day or two; it will only wet the nostrils. By using the powder three times a day for a day or two after the discharge has stopped, this will soon dry up. The fowl can then be used. By using these remedies a fowl loses none of his vitality; nothing injurious about them; any child can take them. Flock's Roup Powder is a fine throat remedy.

While ordering a bird, and he should take the roup, he need not be cast aside on account of it, as he may be one of the choicest birds. He should be given quinine at once and an injection of sulphur as soon as discovered. If you catch the disease in its infancy it is very easy cured. One injection may be enough if the fever is broken. After you have given him an injection the discharge may stop to flow at once. Even if there is no discharge, when the bird gets fever, inject a dose of each into the nostrils, both sulphur and powder. By so doing the disease may never develop.

When a bird is going through the process of keep and takes the fever he should not be worked until fever is broken. If worked the disease will break out in violent form. Nothing should be fed them while giving quinine. After fever is broken, give fresh sweet milk to drink until crop is completely empty. A fowl that has food in its crop when given quinine will not pass it until fever is broken. Then a dose of castor oil in a little milk, or a good feed of bread and milk should be given, but do not feed until he gets very hungry. It is best not to feed too soon after giving quinine. A fowl that has been worked and taken roup and is cured in one or two days does not lose much strength. He can be put back to work if quickly cured. As soon as spit or a swelling appears about the bird's eyes, it should be given quinine and an injection. It may not need another dose if given

in time. If left alone it would develop into violent roup in a few hours.

Birds while going through the process of keep sometimes have a slight watery discharge at the nostrils. That is sweating at the nose. There is no danger when it is not accompanied with fever. Sometimes a great many do that, especially when ventilation is bad. When it is accompanied with fever, then it is pretty certain roup will develop. At such times stop working and give quinine and injection of sulphur and powder, and do not work until cooled out. It may never develop if attended to at once; that is, roup in its infancy. If you work fowl when in such condition roup must surely follow. The violent exercise will develop it.

Should a fowl have diphtherial roup, inject a dropper full of sulphur (diluted) down its throat besides the usual treatment. If he is very bad, swab his throat with the full strength of sulphur. Use some soft material for the swab; a wing feather will answer; dip into sulphur and put down its throat, and then turn it around as you draw it out. But if you use the remedies as I have prescribed, birds can never arrive at such a stage unless the stuff is not used properly.

You can inject the liquid from the roof of the mouth through the cleft palate. The stuff will then run out through its nostrils. To do that you must have a curve on the glass dropper; must also hold fowl so you will

not bruise the palate, which is easily done. In case the head swells you cannot reduce that as long as the fowl has fever. As soon as fever is broken it will begin to go down. Sometimes head swells after the fever is broken. Nothing can be done for that. As soon as fowl gets exercise the swelling will go down; it will do the fowl no harm.

If head is badly swollen and eyes are closed, which is liable to occur in a violent and neglected case, bathe the head in hot water, add Littell's Liquid Sulphur, bathe two or three times a day. Let the water be hot, but not hot enough to scald. If sulphur cannot be had, use salt in place of it. Bathe the head freely. This will reduce the swelling. Sometimes swelling begins before the discharge begins to flow, and sometimes there will be no swelling until fowl is apparently well. This comes frequently of forced treatment by injecting too much medicine into the nostrils. One must not go to the extremes in using medicines. Forced treatment will avail nothing. One should be moderate in their treatment, and must have patience. Whenever the fowl's head swells the sight is dimmed; the fowl cannot see with any degree of certainty when in that condition. When fever is broken and the swelling is gradually reduced the sight comes back.

The best way to tell when fowl are taking roup, go into the chicken house after dark when everything is

quiet. If any of the fowl are taking roup you can tell by their breathing or wheezing. They should then be treated at once. If left until morning, probably the disease has fully developed. In treating fowl for diseases, work upon the same principal as if you were doctoring a child.

CAUSE OF ROUP.

Causes of roup are many. No one is proof against it. Confining too many fowl in a small space will cause roup.

Constantly feeding fowl off of the soiled surface where the fowl have been continually confined. The excrement befouls the soil; will cause roup.

Confining fowl in a small space and continually feeding dry food will cause roup. Too much dry food brings on fever. Fowl should have a change of food every day or two.

An overhead draft in the chicken house will cause roup.

A foul chicken house, where the excrement is never removed, will cause roup. That makes fowl sick and develops into roup.

Fowl kept in a wet place will cause roup; also throat trouble.

Constantly feeding cooped fowl too much wet food; that causes indigestion and that brings on roup.

Working birds too violently in the early stages of keep will surely cause roup.

Feeding dry feed during the early stages of keep will cause roup.

Working a bird when in fever will cause roup to break out in violent form.

Keeping birds in the dark will cause roup.

Keeping birds in a cellar where it is damp will cause roup.

Working birds in wet or murky weather will cause roup and rattling in the throat.

Working birds violently and putting them into a cold coop. They will get chilled quickly; they catch cold, and will cause roup.

Washing bird's feet and head too often during keep will cause roup.

ROUP CONTAGIOUS.

Roup in its infancy is not contagious. A fowl may be put into a pen next to one that has roup, and if confined where they can get plenty of fresh air and not allowed to eat or drink out of the same cup it may never take it.

But in its second stage it becomes contagious, especially when they are living in confined air. A fowl having roup should be removed from the other fowl without delay, and should not be handled by a feeder that is ordering birds for battle. By handling the sick birds

while treating them for the disease the discharge gets on his clothes. He is liable to spread the disease amongst his birds. Fowl running at large with roup will soon contaminate the whole yard if allowed to eat and drink out of the same vessels. A fowl that has roup should be confined in a small coop where it can be easily caught to treat it regularly until well.

ROUP IS NOT HEREDITARY.

Roup is not hereditary, but it is unwise and unsafe to breed from a bird that has the roup or that has had a long spell of roup. In either case the chicks would have no constitution. They would be very weak and very susceptible to disease. They would be hard to raise and those that you did raise would not be vigorous.

GAPE WORM.

The malady is very easily recognized, that gasping for breath is a characteristic symptom. On examining the windpipe a number of small red worms will be found from one-half to three-fourth inches in length.

Chickens get the gapes by eating earth worms. The earth worm carries the germs that produce gape worms. Gape worm is hard to kill. Generally what will kill the gape worms will kill the chicks.

First remedy: Move the coops to fresh and uncontaminated ground. So long as the chickens are cooped

on the ground where the gape worms has its lodgment in the earth worms, the chicks are sure to get them. Move them forty or fifty yards away to fresh ground.

VARIOUS REMEDIES.

Frequently chicks are killed by efforts to remove the worms from the throat. Squeeze the throat between your fingers; begin at the bottom and work up.

A little coal oil in the feed will answer at times.

A little coal oil, one-half teaspoonful in a little milk will kill them.

Heat a spoon and pour in a little carbolic acid and let the fumes go down the chick's throat. It will soon choke up and throw out the worms.

Can use a loop made of horse hair and put it down the chick's throat and pull out the worms.

Can use a hay sprig (timothy). Put it down the chick's throat; turn it around and jerk it out; the worms will hang to it.

Take a wing feather and strip it; leave an inch on the end unstripped. Put it down the chick's throat and work it like the hay spring.

Dip a feather in coal oil and put it down the fowl's throat and turn it around and draw it out.

Put a little melted warm salted butter on the tongue of the little chicks. It will help many of them and will cure some, if not all.

A little whisky put in a teaspoon, add a little paregoric, will cure them at times.

The best remedy is prevention. The young fowl pick these worms off the grass in the early morning. As soon as the dew dries off the worms crawl down into the soil and stay there until the sun is down. If the chicks are shut up until the grass is dry they will not be troubled with gapes.

When gapes once appear in chicks on a place they are likely to be found there year after year.

CROP BOUND.

This complaint is frequent when the fowls are confined and not allowed a range, overfeeding, indigestible food and not being supplied with grit and green food.

When fowl are in this condition they will invariably die if not relieved.

Dissolve a heaping teaspoonful of soda in a cup of water. Pour a spoonful down the fowl's throat, at the same time gently manipulate the mass in the crop with the fingers; in four hours give a spoonful of castor oil. Confine the fowl until well.

Another simple remedy and a most effective one: Pour warm water down the fowl's throat until well filled up. Work the mass gently with the fingers; then take the fowl by the thighs (catch from rear) and

lift high up in the air and bring it down suddenly towards the ground. Repeat this as often as necessary. You will sling out the contents of the crop.

Another way: Pour warm water down the fowl's throat until filled up; then work gently with fingers; hold fowl's head down and work the mass a little at a time out through the mouth.

Another way: Cut the crop open and remove the contents; wash out the crop and then sew up the inner lining first and then the crop; can sew with horse hair or silk thread; give nothing to eat but bread and milk until well.

SCALY LEGS.

Scaly legs are due to minute parasites, which multiply very rapidly. These parasites become imbedded in the legs, forming scales. It is easily cured when it first appears. When the legs become heavily scaled it is more difficult to cure. The disease should never be tolerated. If not cured will effect the whole flock.

Scaly leg is something which is very apt to show itself on fowls over a year old. If the legs are covered with scales the lice will find harboring places on them. There are a number of remedies, and if either of them are used in time will effect a cure. Wash the legs in a solution of Littell's liquid sulphur. Then grease with sulphur ointment; will effect a speedy cure.

Wash the leg in hot water; use strong lye soap, then dry them and use an ointment of one part kerosene and two parts lard.

Wash the legs with strong lye soap, and grease with an ointment made of Littell's liquid sulphur and lard.

Grease the legs with one part kerosene and three parts sweet oil.

An ointment made of kerosene, carbolic acid and lard is also good.

If the evidences of the disease are already visible, one treatment will not be sufficient to effect a cure. Treatment should be repeated every two weeks, and then every month until legs are clean.

PIP.

There is no such disease as pip. When the fowl is supposed to have pip the under part of the tongue is covered with a horny substance, and the general belief is that the fowl cannot eat while it remains there. That horny substance is there at all times. To remove the horny substance will destroy the fowl's tastes; it will not be able to distinguish rotten corn from sound corn. It is an ailment of the fowl's digestive organs. It has eaten something that has ruined its appetite.

Coop it up; don't feed for twenty-four hours; give a physic of castor oil; then give nothing but milk to drink for a day or two; it will soon regain its appetite.

HOW TO REMOVE CORNS.

Make a salve of one part of oil of tar and two parts mutton tallow (can also use pine tar in place of oil of tar) ; put the tallow in a pan ; put it over a slow fire and let it thoroughly dissolve. When thoroughly dissolved, add the oil of tar. Stir with a spoon and let it remain until it begins to froth, then take it from the fire. Can add a little oxide of zinc ; then put in a little jar and keep it covered ; use one ounce of tar to two ounces of tallow.

To remove a corn, put salve on a cloth and tie it on fowl's foot ; let it remain 24 to 36 hours. Put bird in coop on straw, then place the bird's foot in hot soap water ; the corn will come off like rotten sponge. When removed, put vaseline on a clean cloth and tie on bird's foot ; it will be well in a few days.

LIMBER NECK.

Limber neck is caused by the fowl eating maggots. The maggots eat through the lining of the crop.

Symptoms: In its infancy fowl will stand with its head down ; occasionally will raise its head and open its eyes for a moment, then drop its head again. In a short while it will sit down, and its neck will be drawn in a circle, its head drawn to its breast and the neck feathers ruffled towards the head. When far gone the fowl will

lay on the ground and stretch its neck and the neck feathers ruffled; they will live from one to three days. They are very hard to cure, as generally what will kill the maggots will kill the fowl.

Give a teaspoonful of whiskey; add 2 drops of paregoric; give every hour.

Another remedy: Liquid sulphur in a little water; give half teaspoonful to same amount of water every two hours.

Another remedy: A teaspoonful of kerosene in a little milk; add one drop of carbolic acid.

Another remedy: Make a tea of poison ivy and give a teaspoonful every hour.

The safest way is to prevent it by keeping premises clean and burying all the carion.

CHICKEN POCK.

This disease is very contagious if allowed to run with other fowl. Symptoms: The fowl droops, has a high fever, has a warty breaking out all over the head and neck; the skin becomes very hard all over its head and warty little bumps form on the head, nostrils and eyelids; the fowl becomes very sick and will refuse to eat, and will go blind and will die in a few days.

Treatment: Coop the fowl at once and isolate it. Put it into a dark place, as the sun is very severe on its

eyes at such times. Give 2 grains of quinine every two hours until fever is broken; then grease with the salve, oil of tar and mutton tallow; grease head and neck.

After fever is broken, feed bread and milk (hand feed), as the fowl goes blind, and if not fed will starve to death. Grease head and neck every day until well.

Another good remedy: Wash head and neck with Littell's liquid sulphur and warm water; make the liquid strong; then grease with sulphur ointment; this will cure the disease in a few days. A few applications of the sulphur will dry the scabs; they will then fall off very readily.

Another remedy: Paint the head and neck with iodine, but must be careful not to get the stuff in the fowl's eyes.

Another remedy: Grease the head and neck with carbolated vaseline; in using any of the remedies the fever must be broken; it will then soon yield to treatment.

FROZEN COMB.

Rub the afflicted parts every morning with two parts distilled glycerine and one part turpentine. At noon apply sweet oil and rose water; at night repeat the morning dose. In a few days no trace of it will be left.

Another remedy: Bathe the comb in kerosene and

afterwards with glycerine; treat the wattles the same way.

CHICKEN CHOLERA.

Chicken cholera invariably kills inside of forty-eight hours. Fowls suffering with a severe attack of diarrhoea are too often supposed to have cholera.

This mistake is especially likely to be made if a number in the same yard are affected in the same way at the same time. Such trouble is often nothing more than indigestion, and while alarming in its aspects, is something altogether distinct from cholera.

It is brought on by improper food or food of one kind to which the fowl has been too long restricted. A complete change in feeding will often cause the trouble to entirely disappear in a few days.

Chicken cholera proper is an uncommon disease. Not one-half the cases which are so reported are in reality the dreaded scourge.

In treating it the poultry house should be thoroughly cleaned; lime and carbolic acid should be used for disinfection.

The rubbish from the nests should be burned. Fresh dust with carbolic acid should be put in the scratching boxes.

SYMPTOMS.

Fowl has a slow, stalking gait; a droopy, sleepy ap-

pearance; gapes often; the comb and wattles pale and sometimes turn very red; diarrhoea, at first very light, increases, green in color; the crop fills with wind and fowl won't digest its food; breathing is very heavy and fast; eyes close and in a few hours the fowl dies.

REMEDIES.

Give a teaspoonful of whiskey; add 2 drops of paregoric; give every hour until well. Coop up the fowl. This is a very simple, yet a positive cure.

Another remedy: A teaspoonful of asafetida and a dessertspoonful of Epsom salts well mixed with soft food for twenty fowls; if they refuse to eat, dose them with it.

Another remedy: Sulphuric acid, 1 ounce; iron sulphate, 11 ounces; add enough water to make one gallon; mix well; add one ounce of this mixture to one pint of water and put where fowl can drink; can also put it into food.

Another remedy: Littell's liquid sulphur 3 drops in a teaspoonful of water given every hour will cure in a short while.

DIARRHOEA.

Give a few drops of laudanum; feed boiled rice and powdered chalk; or can give boiled corn meal; add a little salt; put Littell's liquid sulphur in drinking water; confine the fowl until well.

DYSENTERY.

This disease is an inflammation of the intestines and is characterized by bloody passages. It may occur with or without diarrhoea, and sometimes exists in epidemic form, when it is rapidly fatal. The treatment is the same as for diarrhoea, with the addition of opium or laudanum in all cases; carbolic acid a few drops in their water is useful; liquid sulphur in the water is also useful; separate the sick from the well.

WORMS IN FOWL.

Fowl has fever; comb and wattles very red at times and face pale; fowl constantly sitting down, and when walking walks in a stalking gait; fowl will eat and digest its food at such times.

Remedy: Confine the fowl; don't feed for twelve hours; then give a 5-grain pill of arceca nut; to make a pill roll the powder in a little butter; in two hours give a teaspoonful of castor oil; do not turn fowl out until medicine has acted; too much meat produces worms.

CRAMP IN FOWL.

Symptoms: Fowl has its feet drawn up under it and its legs and feet cold.

Put fowl's feet and legs in hot water; let it remain

there for a little while; rub feet and legs vigorously; give 3 drops of Littell's liquid sulphur in a teaspoonful of water; that will relieve cramps; can also give a teaspoonful of whiskey; add 2 drops of paregoric if sulphur cannot be had; either of them will cure; give every hour until relieved.

MEXICAN FLEA.

The Mexican flea is a small parasite very much resembling the common flea in looks. They don't jump; they stick very close, and it is almost impossible to pull them off; they settle on the fowl's head and neck; the face is sometimes completely covered with them; they kill fowl by the hundreds, especially young chicks. When grown they drop off and lay their eggs in the sand. Apply to the head and neck train oil (fish oil); that will kill them at once.

Another remedy: One pint of kerosene oil; add one ounce of blue ointment (mercurial ointment); mix well and wash head and neck and under the wings; keep the solution out of the eyes.

CANKER IN THE MOUTH AND THROAT.

Littell's liquid sulphur will cure canker in two or three days. Put the sulphur on full strength morning

and night; it will dry it up; it will cure the worst case in three days.

Another remedy: Sprinkle the canker with burnt alum.

Another remedy: Can be burnt with nitrate of silver.

INDIGESTION.

Indigestion is caused by too much soft food; also feeding before crop is empty.

Remedy: Change the food; feed dry, hard food and give plenty of gritty matter; don't feed until crop is empty; if this does not cure, give a pyhsic of castor oil in a little milk; sometimes the liver is at fault.

GIDDINESS.

This is caused by excessive feeding and no exercise. Feed less and give a good range for exercise.

DRY RATTLES.

Give a teaspoonful of hot lard; add a few drops of turpentine; give night and morning.

It is frequently cured by giving the fowl a pinch of baking soda in a little milk. If it is of long standing it is hard to cure.

Three drops of Littell's liquid sulphur in a little water given twice a day will often cure it.

WHEEZING.

A fowl wheezing and laboring hard while breathing has caught cold, and it has settled on its lungs. It will die in a short while if not cured.

Treatment: Set a kettle of water on the stove; let it boil; when boiling hold the fowl's head over the neck of the kettle; hold open its mouth and let the escaping steam go down the fowl's throat, so it reaches the lungs; repeat this as often as necessary; put fowl in a warm place; no other treatment will cure the fowl.

TONIC FOR FOWL.

A healthy fowl needs no tonic nor medicine. It should be given to the weak and debilitated fowl.

Tincture of iron is a powerful tonic. When giving, put a teaspoonful in a gallon of water and give three times a day. It should not be given in prolonged doses, as it effects the digestive organs and is liable to remain undissolved in the bowels. It acts upon the blood and regulates the heart. It is also a powerful astringent. It should not be given to a fowl when in fever. Give it when the fever is on the decline.

Permanganate of potash is a splendid tonic for sick fowl. Give a teaspoonful in a half gallon of water; let them drink all they want of it; it will also assist in preventing disease from spreading; let the well ones drink all they want of it.

A GOOD TONIC.

Put one-half pound of sulphate of iron and one ounce of sulphuric acid; dissolve in two gallons of water; when using give one teaspoonful to a quart of water.

ACONITE.

Ten drops to a quart of water given twice a week is also a good tonic.

A teaspoonful of red pepper to a peck of mixed food makes a good tonic.

Asafedita is regarded as a nervine; 5 to 6 drops given every two hours will bring about good results to a sick fowl; it is a stimulant and promotes digestion; can also be given in 5-grain pills; it is one of the best medicines for fowl.

TONICS.

Calumba—This is a pure stimulant and stomach tonic, increasing the appetite and improves digestion; it does

not constipate if given in small doses. Give 5 grains at dose.

FLAXSEED FOR SICK FOWL.

Give flaxseed tea. It can be given with perfect safety. It is fine for the digestive organs and good for internal inflammation. It is splendid for wounded and battered birds. To make it, take one-half ounce flaxseed; pour over it one pint of boiling water; let it set for two hours; then strain, and it is ready for use.

MILK.

Of all forms of food that can be given there is no doubt milk is the best. Nothing so maintains the strength without tending to excite fever. To a fowl that has diarrhoea it should be given boiled and a little lime water added. It should be given often, but not much at a time.

PHYSICS FOR FOWL.

A teaspoonful of castor oil given in a little milk makes a most effective yet harmless physic.

Jalap 5 grains; one-half teaspoonful of cream of tartar rolled in a little flour and butter; give no food for twelve hours after giving pill.

Jalap 5 grains, given in syrup of rhubarb.

Two grains of aloes is a good purgative.

FEVER CURES.

When a fowl has fever quinine in 2-grain capsules should be given every two hours until fever subsides. Quinine given in small doses stimulates the appetite and digestion, but in continued large doses it irritates the digestive organs and confines the bowels at first; then liable to cause diarrhoea. It also produces muscular debility and causes indigestion. In continued excessive doses it is dangerous and even fatal to fowl. In all cases where quinine has been given and fever has subsided, a good dose of castor oil should be given. Fowl should not be fed until sometime after medicine has acted.

Piperine, 1-grain pills given every two hours.

Antipyrine is a powerful medicine for fever if used properly. It is an antiseptic; it destroys bacteria. The temperature begins to decline soon after the medicine is given, and its total subsidence from four to six hours after the medicine has been given. Give 2-grain capsules every two hours. Can alternate; give quinine and then antipyrine every two hours.

USEFUL NOTES.

It is a mistake to be constantly feeding fowls special preparations to ward off disease. Simple and wholesome food, plenty of sunshine in winter, as well as shade in summer, is all that is needed.

Use only glazed dishes for drinking vessels for your fowl. Porous and wooden ones become infested with germs of all sorts. Tin dishes rust out and leak and poison the fowl.

The digestive organs of the fowl are rather a delicate muscular contrivance. The more these muscles are strengthened by exercise, the better.

Fowl losing feathers is often caused by want of green food and a good dust bath.

For hens that lay thin shelled eggs, mix bone meal in their feed.

If a fowl is healthy, the skin is red around the vent. If unhealthy, it is blue and pale. It's a splendid sign and a certain one.

Use coal oil and lime for nests and roosting poles, but if you don't provide a dust bath, if they have no place to wallow, the lice will stay with them.

Fat hens are more liable to set than poor ones.

When setting a hen have the eggs uniform.

A dry, warm nest put in a warm place in winter;
moist nest in a cool place in summer.

Always feed at regular hours.

In feeding green bone give one pound to twelve fowl.

As a remedy for injudicious feeding and bowel trouble
and indigestion, nothing beats charcoal.

Fowl want sunshine in winter and shade in the
summer.

To tell a male from a female when first hatched,
place a magnifying glass on the inside of the chick's
leg. If a male, there will be a red spot where the spur
will grow; if a female, will show no mark.

A male has no influence on the number of eggs a hen
lays. If hens are kept in proper condition they can't
avoid laying.

A chick when first hatched will double its weight
every ten days. After forty days they do not double,
but grow fast.

Apoplexy and egg bound are the results of excessive
fat.

Millet seed is a great egg producing grain.

Lime is essential to the formation of egg shell. Where a hen has a free range it is not necessary to supply it, but when confined, lime should be supplied in some form.

If you supply a good dust bath for your fowl you won't have to spray your hen house so often.

Give green food in winter if you want healthy fowl.

Don't have perches over three feet from the ground, and have them all on the level, so the fowl won't fight for top perch. Flying off high perches produces bruises and corns.

Never let the chicks out in the dew in the morning.

Never breed from a male or pullet under ten months old. The older the better.

Scaled corn is very injurious to fowl.

Never give stagnant water or sour and mouldy food to your fowl.

Fowl frequently change their plumage in color.

Always take the hen away after the cock has taken a dislike to her. She will never do any more good, and he is liable to injure her.

To fatten fowl, use Indian corn meal and vegetables.

Overcrowding coop will retard young chicks' growth; they need room.

A chick that gets chilled and droopy for a few days never catches up.

Chicks as a rule have the characteristics of the sire.

High bred fowl with good constitution can resist disease better than common fowl.

A peculiar excrescence is found growing on grain. That found on corn is called smut, and that found on rye and wheat is called ergot. If too much of this affected grain is fed to the fowl it will cause convulsions and death.

Hens in a wild state only lay what eggs they can cover and incubate. They do this twice a year.

Physicians say never give an invalid an egg that is over two or three days old.

When a fowl is sick, feathers will hang loosely. When well, will adhere closely to the body.

The best hens for bringing out chickens are those of a quiet disposition.

Sound fowl cannot be kept healthy in foul houses.

Millet seed is good for little chicks; better than corn.

Stout bone indicates strength. Chicks that have strong, thick thighs will nearly always make vigorous, healthy fowl.

Make new nests once a week and burn the old ones.

The Henny is not a freak of nature, but a distinct breed of fowl.

A hen is at her best when she is three years old.

When you mark eggs, mark with ink.

Always have a grassy range for your fowl. If that can't be had, dig up the ground with a spade so they can have fresh soil to scratch in.

Everyone knows what cleanliness is. It's the foundation of success with fowl.

Kerosene oil and crude carbolic acid are the cheapest and most effective disinfectants.

When white corn is fed to hens they produce eggs with light yolks. When fed yellow corn, yolks are red.

A good egg will sink when dropped into a bucket of water. If it topples around in the water, apparently standing on its end, it is fairly fresh; if it floats it is bad.

The shell of a fresh egg looks dull and porous; an old one looks thin and shiny.

Dried clover and other green food, roots and tubers should be saved for winter. These should be steamed and fed with the mash in the morning.

When two non-sitting breeds are crossed, the progeny make setters.

Fowl of any particular strain will all feather alike if kept pure. The color of legs will be the same. When crossed several times they are liable to come any color.

When a hen is too fat her eggs have soft shells. Give less fattening food; feed clover and bran, that are rich in lime; that makes egg shells.

Coal cinders are a splendid grit for fowl. Chickens prefer them to any other grit.

Ducks should be kept away from a pond or pool of water until the feathers have made a good start to grow. They die very easily if they get chilled.

Broken shells sometimes slip over the ends of eggs and prevent the inmate from chipping out. All shells should be removed as soon as possible.

Hens will stay with their brood longer if their run is in a yard separate from other fowl.

If chicks are removed from the hen while hatching, be sure to leave under her any that are peculiarly marked, for she will refuse to own them when put back with her again; she will kill them.

Raise sufficient quantity of sunflower seed to feed chickens on during the winter if you want plenty of eggs.

Young rye is mostly water, and contains very little nutrition. It is a laxative and causes diarrhoea. If fowl appear to be affected from it, they should be kept away from it for a few days and fed on boiled corn meal, with a little salt added, a teaspoonful of salt to a quart of meal.

Ducks and geese are very susceptible to swell head if confined in a damp place for any length of time.

When hens have cold they won't lay. When on the roost they should be snug and warm.

Pullets for eggs and hens for stock.

If a fowl has a dizzy spell, bleed it and dip it in cold water.

Crowded roosts at night brings on colds.

Green food colors egg yolks, makes them hatch well, furnishes shells and keeps fowl healthy and is cheap.

Forcing hens for heavy egg production by feeding peppers or other highly seasoned condition powders will not benefit fertility. You get an increase of egg production, but you cripple your chances of getting strong, healthy offspring. There is stimulation enough in pure food.

When meat is not available, linseed meal should be used. A cupful of meal to four quarts of mixed grain.

A hen is supposed to eat one bushel of grain in a year.

The hump on the fowl's back is caused by the young chicks roosting in a tree too early. The old hen covering them while on the limb causes the hump.

A turkey and a guinea can be mated to common barn yard fowls. Their offsprings will be non-sect. They will neither lay eggs nor set. They grow very large.

Overfeeding is the cause of mostly all ailments of the fowl, and more deaths follow from this cause than any other.

The larger the bird, the longer the period required for reaching maturity.

Soft shell eggs are almost positive proof that the hens are too fat. Remedy: Cut down the food and make them work off the fat.

Too much meat or too much fresh bone given to fowl causes worms.

Hens will crow at times.

All breeders as a rule should have as few faults in their stock as possible, because little faults in the old birds develop great faults in their progeny.

A hen allowed to make her own nest in a hedge always brings out a much larger, stronger and healthier brood than the one which sits in the dry atmosphere of the hen house.

After a hen has hatched out a brood it is unwise to immediately set her again. She is liable to die on the nest unless very strong.

Do not allow droppings to remain in the chicken house longer than twenty-four hours, as they decompose during warm weather and give off disagreeable odors, which injure the health of fowl.

Give a teaspoonful of oil of sassafras in mixed food for ten hens twice a week. The lice will leave the body of the fowl.

A leg fighter is a cock that gets his feet up above his head level when he strikes; shows the bottom of his feet; such are cutting cocks.

A large head and long toes denote strength in a cock.

A wing beater is a cock that does not reach out, but flutters a great deal with his wings. He is sometimes very fast, and gets over a great deal of ground, but he doesn't execute with his feet. Such cocks make poor brood cocks. They haven't the cutting qualities.

You can keep any number of stags together by taking the hens away from them. Put an old cock with them; he will keep order.

Never run a bird down to catch him. Catch him at night if possible.

A coop raised bird is of no account for pit purposes.

Never catch a bird by tail or wing feathers.

Never breed from faulty or roudy stock.

A cock fights fastest at two years old. After that he decreases in speed, and increases in strength and hardihood.

It is very unwise and injurious to keep the birds in the dark. They must have sunlight and ventilation.

A cockerel or stag are the same, and when one year old are considered cocks.

Never give fowl medicine unless they are sick, and then you should be well posted as to what to give and how much and what effect it will have.

Working a cock does not cut the fat. That must be done by a system of feeding and working.

Birds that have been cut out of feather and fought should not immediately be put out into the cold. They soon catch cold and their joints stiffen if they have been much cut.

Always make the nests of soil in summer.

A game cock can be made to hack, no matter who bred him.

A sick cock should never be fought. He is liable to run away.

Never breed from an inferior fighting cock. Constitution and gameness are the most essential qualities necessary for a brood cock. He must be of high class and blood, and come from a line of fighters.

Color of plumage in a fighting cuts no figure. A white cock can fight as well as a black or red or any other color.

The best walked cock is the one that has a run in the woods.

A breeder to have fighting cocks must also have good hens.

Fine plumage shows breeding, but that doesn't prove gameness.

Cocks that have been coop raised cannot be ordered.

A savage biting cock should not be teased. Put on a pair of gloves and hold your hand still, let him bite. In a few days by handling gently he will get over it.

A cock running under another cock is liable to run away when fought against a cock of the same color, unless given time to forget him.

Don't handle fowl too much. It does no good. A Dunghill cock put with good hens will raise pretty good cocks. Vice versa will be no good.

It is unwise to trim out a bird that you intend to order. He should only be trimmed under the vent, so he can be greased. When the tail feathers are cut off they are easily broken, besides they hurt a fowl while in the coop. When cut off they won't bend so readily.

Cocks raised in coops get dizzy. They run in a circle when put down, especially if they are too much inbred.

If you intend to fight at night feed and work by artificial light.

A game cock and a game fighting cock are a separate and distinct breed of fowl. A game cock is worthless if he can't fight.

A cock with no toe nails is at a disadvantage; should have the advantage in weight.

The hen that lays diminutive eggs are too old, past their prime, and the very small ones will not hatch. When young hens lay such eggs it is caused by high feeding. Remedy for young fowl reverse the feed; no cure for old fowl.

Most all diseases are brought on by over feeding and carelessness. While it is most essential to be careful not to over feed, under feeding must also be avoided. It is not the amount of feed they get that tells to best advantage, but the way in which it is fed to them.

Chilled eggs won't hatch.

If you have a fowl with a white scum forming over the eye, blow into the eyes a little powdered sugar. It will cut the scum and cure it, if not too far gone.

You can harden a bird by cooping and feeding, but when cut, his flesh will relax; he will not recuperate.

A cock when moulting is liable to hack, even when no other cock is in sight. Game cocks do that frequently.

To make a spur grow on a cock's head, split the comb when the cock is young. Take a freshly cut-off spur and insert it into the comb. Put a few stitches in the comb to hold the spurs in place. It will soon grow.

Roup saps a fowl's vitality.

An overworked bird won't fight as well as a well walked bird fresh from his walk. He won't have the vim and vigor; that has been taken from him.

There are frequently on exhibition at museums fowl without beaks, called a freak of nature. They are manufactured. It is done by the cruel method of sticking the beak into a hot potato and holding it there. That causes the beak to fall off.

Confining a bird in a small coop will make his spurs and toe-nails grow long.

A high stationed cock has the advantage over a low stationed one. A cock always looks for a top bill hold; he rarely ever catches at the breast.

A high flyer has the advantage over a ground fighter.

High class, well-bred cocks are not all fighters. You must pick individuals if you want fighters.

A fowl continually opening its mouth and stretching its neck has indigestion.

A chilled bird won't hit when his feet are cold. Remedy: Warm his feet.

If a fowl is fat, the point of the guide bones, each side of the fowl's vent, will be covered with a layer of fat. When poor they are merely covered with skin and are very pointed. It is a positive sign.

Mexicans use but one slasher in slasher fighting. They tie that on the left leg. The left leg is the cock's fighting leg.

A slasher is a blade sharpened to a razor edge on both sides. It is from 2½ to 4 inches long and 1-3 of an inch wide.

Lining nests with green tansey is a good preventive of chicken lice. Change every week.

A good tonic for moulting fowls is made by soaking rusty nails in cider or vinegar, and mix their food with it.

In whitewashing coops, mix crude carbolic acid in the whitewash.

When a hen is egg-bound, she comes off the nest without laying, and walks about distressed hanging down her wings. In some cases she remains on the nest. A tablespoonful of castor oil will relieve her.

Sharp, fresh, coarse sand is indispensable to fowls shut up during winter months.

Wood ashes should not be used in poultry houses or under the roosts. They contain the actual potash and injure the dropping by liberating ammonia. Also potash is caustic, causes the fowl's feet and legs to become sore, especially in damp weather. Finely sifted coal ashes may be used freely.

When you build a poultry fence of wire netting, do not add a rail at the top of net. Stretch the wire, if needed. The fowl soon learns to fly over the rail because they can see it.

There are no such fowl as long and short heel fighters. As to the heel a cock can fight with is a mere matter of fancy. A well ordered game fighting cock can fight with any kind of heel. If both birds carry the same length of heel there is no odds, no matter where they were raised.

It is claimed by many breeders that it is not necessary to have the cock with the hens every day; that if the cock did not have intercourse with the hens every day the chicks would be more vigorous.

Shuffling is a decided and distinct trait in a certain strain of fowl. All cocks do not shuffle.

A game cock when moulting gets very sore, and when in that condition is liable to hack, no matter who bred him. His hacking at such times is no disparity on his gameness.

There is a prevailing idea among a large number of chicken fanciers that a game cock will not run or hack under any circumstances. That is a mistake. Any game cock can be made to hack.

When a fowl assimilates its food the liquid is first absorbed from the crop.

Fighting cocks in extremely hot weather is very trying on them. It severely tests a cock's gameness. An overheated and exhausted bird will at times leave after having the other bird cut down, but will fight again when he recovers from his exertion.

Too many fowl should not be crowded into a small chicken house. When too much crowded it causes them to sweat, and that causes them to catch cold, and also weakens them, especially the young fowl.

All cocks fight for the head; that is their objective point; but when once stung with the gaff they are liable to hit their adversary anywhere. The best fighting cocks are the ones when turned loose which hit anywhere, not look for any particular place to strike.

Slow birds, as a rule, are very deliberate while in action. They are more accurate than a fast bird. A fast bird will hit anywhere and hit from any position he is placed in.

The soil in the chicken house should be removed to a depth from 4 to 6 inches every fall, and replaced by fresh soil from the garden.

Boards should not be used for flooring in the chicken house. Earth is nature's great absorbent, destroying impurity by transforming it into something wholesome and useful.

To keep a hen in good condition for laying she should never have a full crop during the day.

Feeding soft feed leads to many errors on the part of the new beginner, causing him to overfeed. Fowl are soon ruined when fed soft food and it not carefully measured.

Dry hard corn is the best food for fattening fowl.

Breeding to color strictly, impairs a fowl's fighting qualities.

Rules of the New Orleans and Mobile Cock Pit.

- 1—All Cocks to be weighed and matched within two ounces of each other.
- 2—Cocks to be trimmed out fairly.
- 3—Cocks are to be fought with fair gafts; all round points and blades are fair; flat points and sharp edges are unfair. The gafts to be examined on entering the Pit, before the fight, by their respective pitters.
- 4—If the pitters should forfeit the fight by acting contrary to the rules, after the fight has commenced, then by-bets are also forfeited.
- 5—The pitters shall let the cocks peck each other four or five times before they put them down, and place them fairly on their feet without pitching or throwing them toward the opponent cock.
- 6—The cocks are to be pitted five or six feet apart, as long as they will meet each other; when they refuse, then the watch will be called—the first time three minutes before they are handled, and afterwards only one minute is allowed for three pits, and then they are to be pitted beak to beak until the fight is ended.
- 7—In case neither cock fights in five pits, then a mantle or fresh cock must be brought into the pit to peck both cocks; in case both cocks fight it is a drawn battle, in case neither cock fights it is also drawn. If one cock fights and the other refuses, or cannot fight, the fighting cock wins the battle. Neither cock is to be taken out of the pit until the fresh cock is brought in, and then a toss up which cock shall be tried first. No refreshments to be given either cock until after tried.
- 8—The pitter has a right to press up his cock's legs and fix his wing feathers in their proper places, and then walk deliberately to his score and put his cock down without delay, or when called on by his opponent pitter.
- 9—If one cock makes fight and the other does not, the fighting cock takes the count and counts ten and so on at every pit until he counts forty; and if the cock still refuses to fight they are to be pitted breast to breast, and then the pitter counts twenty, which ends the fight in his favor.
- 10—The pitter must handle his cock when hung in the other cock or otherwise, and has a right to give his cock a wing, or turn him when on his back, providing the other cock does not touch him. Drawing feathers from the head, beak or eyes is allowed.
- 11—If one cock dies in the pit the living cock wins the fight, although he may show no fight. But if both cocks die in the pit while counting, before the long count is out, the longest liver wins.
- 12—No changing of cocks after the match is made, under the penalty of forfeiting the fight. If there is a doubt of it being the cock matched, they have a right to weigh him after he is heeled. Every man forfeits the battle by refusing to weigh his cock.
- 13—If one pitter should make an attempt to handle his cock and he should not be hung, then the other pitter has a right to handle his cock. Each pitter must stand three feet from the cocks while they are fighting.
- 14—It shall be at the option of the pitters, or parties making the battle, to select each one judge, to see that the above Rules are observed; their decision, or that of an umpire to be chosen by them in case they disagree, TO BE FINAL.

N. B.—Gentlemen are particularly requested to keep good order, and SMOKING IS POSITIVELY PROHIBITED IN THIS PIT.

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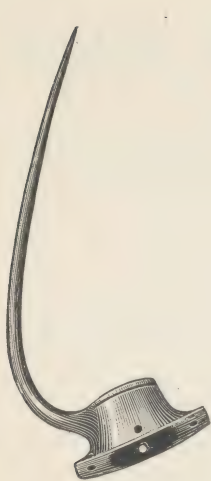
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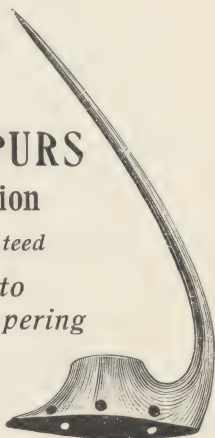
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